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**GROUNDWATER MONITORING  
AND NAPL SEPARATION/HOT WATER GENERATION/GROUNDWATER  
TREATMENT SYSTEM STATUS REPORT  
OCTOBER 2010 – DECEMBER 2010  
(QUARTERLY MONITORING EVENT)**

**JENNISON WRIGHT SUPERFUND SITE  
900 WEST 22<sup>ND</sup> STREET  
GRANITE CITY, ILLINOIS**

**PREPARED FOR:**

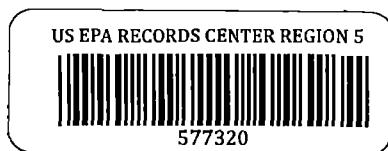
**Ms. Erin Rednour  
Illinois Environmental Protection Agency  
Bureau of Land  
1021 North Grand Avenue East  
Springfield, Illinois 62794-9276**

LPC No. 1190400008-Madison  
Jennison Wright/Granite City  
Superfund/Technical

**PREPARED BY:**

**BODINE ENVIRONMENTAL SERVICES, INC.  
5350 EAST FIREHOUSE ROAD  
DECATUR, ILLINOIS 62521  
(Bodine Project #119386-12)**

**May 2012**



June 26, 2012

Ms. Erin Rednour, Project Manager  
Illinois Environmental Protection Agency  
Bureau of Land  
1021 North Grand Avenue East  
Springfield, Illinois 62794-9276

Re: Quarterly GWOU Status Report  
October 2010 through December 2010  
Bodine Project Number 119386

1190400008 – Madison  
Jennison Wright /Granite City  
Superfund/Technical

Dear Ms. Rednour:

Bodine Environmental Services, Inc. (Bodine) is pleased to provide two (2) copies of the Quarterly Groundwater Operable Unit (GWOU) Status Report for the above referenced site. This report summarizes the data and results of the GWOU operation, maintenance, sampling and analytical results for the period between October 1, 2010 and December 31, 2010.

If you have any questions, please contact the undersigned at (217)519-3955.

Respectfully submitted,

**BODINE ENVIRONMENTAL SERVICES, INC.**

*Troy McFate*  
Troy M. McFate  
Senior Project Manager

*Bob Bryson*  
Bob Bryson  
Vice President of Operations

Enclosures: Quarterly GWOU Status Report – 2 Copies

Cf: Tom Campbell, Ecology & Environment Engineering, Inc., 33 West Monroe Street, Suite 550, Chicago IL 60603  
Sheila A. Sullivan, M.P.H., U.S. EPA Region V, Mailcode HSRM-6J, 77 W. Jackson Blvd., Chicago, Illinois 60604-3590

(All cfs with copy of enclosure)

**GROUNDWATER MONITORING  
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**Troy M. McFate**  
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Senior Project Manager

  
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Vice President of Operations

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>2.0</b>	<b>GWOU SYSTEM STATUS .....</b>	<b>2</b>
2.1	GWOU System Operation .....	2
2.2	GWOU System Performance.....	3
2.3	Contaminant Mass Removal.....	3
<b>3.0</b>	<b>GROUNDWATER MONITORING ACTIVITIES .....</b>	<b>5</b>
3.1	Hydrogeology and System Influence.....	5
3.2	Groundwater Quality .....	5
<b>4.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>9</b>
<b>5.0</b>	<b>LIMITATIONS OF INVESTIGATION.....</b>	<b>10</b>

### Tables

1. Summary of GCRWWTP Effluent Results
2. Summary of Influent Sample Results
3. Summary of Effluent Sample Results
4. Mass Removal
5. Groundwater Level Measurements
6. Summary of EEEI's November 2008 Groundwater Analytical Results
7. Summary of EEEI's December 2009 Groundwater Analytical Results
8. Summary of October 2010 Groundwater Analytical Results
9. Summary of Extraction Well (EW-1) Results
10. Summary of Extraction Well (EW-2) Results

### Figures

1. Site Plan Map
2. Shallow Groundwater Contour Map—October 11, 2010
3. Medium Groundwater Contour Map—October 11, 2010
4. Deep Groundwater Contour Map—October 11, 2010

### Appendices

- A. Weekly Operation Logs
- B. GCRWWTP Discharge Permit Analytical Results
- C. System Operational Sample Results
- D. October 2010 Groundwater Analytical Results
- E. Groundwater Sampling Forms
- F. Photograph Log

## 1.0 INTRODUCTION

On behalf of Illinois Environmental Protection Agency (Illinois EPA), Bodine Environmental Services, Inc. (Bodine) is submitting this Groundwater Monitoring and Non-Aqueous-Phase Liquid (NAPL) Extraction/Groundwater Treatment System (hereafter referred to as Groundwater Operable Unit[GWOU]) Status Report to the Illinois EPA to document and discuss activities completed at the former Jennison Wright NPL site (hereafter the “site”) during the system operation period from October 1, 2010 through December 31, 2010. This is the fourth quarter monitoring event for 2010 and represents a period of three months.

In 2009, the GWOU was installed to extract NAPL and treat impacted groundwater from the former 22<sup>nd</sup> Street Lagoon area. The USEPA determined the GWOU to be substantially completed in accordance with the remedial design plans and specifications in September 2009. The GWOU was started and due to issues with scaling of the heat exchanger the system was redesigned by Ecology and Environment Engineering, Inc. (EEEI) in December of 2009. EEEI added a feed tank and changed the piping so the groundwater from the extraction wells would be treated prior to entering the heat exchanger. The GWOU continued to experience iron and calcium carbonate scaling issues so the temperature to the injection wells was lowered to 140 degrees Fahrenheit and antiscalant chemicals were utilized to improve operating time. The GWOU was determined to be Operational and Functional by the USEPA and Illinois EPA in September of 2010.

During the operation period from October 1, 2010 to December 31, 2010, the GWOU operated 84 days. The GWOU was shut down to perform cleaning activities and install additional treatment equipment.

System operational samples are collected monthly and analyzed for 40CFR136A Method 625 semi-volatile organic compounds (SVOCs), Clean Water Method 1664 Oil and Grease (O&G), Standard Methods 2540D Total Suspended Solids (TSS), Standard Method 5210B Biochemical Oxygen Demand (BOD), and pH. In addition, samples were collected of the effluent and analyzed for parameters required by the City of Granite City Wastewater Treatment Plant (GCRWWTP) Discharge Permit. The results of the effluent sample indicated the effluent met the standards of the permit. Groundwater samples were collected from select groundwater monitoring and extraction wells from October 12-14, 2010 and analyzed for SW-846 Method 8270 SVOCs. Pentachlorophenol was analyzed utilizing SW-846 Method 8151A. Based on the analytical results, groundwater concentrations appear to be increasing within the treatment zone. In addition the PCP concentration appears to be increasing in MW-8S, which is located in the former PCP treatment area. Approximately 317 pounds (lbs) of SVOCs were removed during this monitoring period.

## 2.0 GWOU SYSTEM STATUS

2.1 **GWOU System Operation.** The GWOU was implemented to mobilize the NAPL plume observed within the area of the 22<sup>nd</sup> Street Lagoon so that it could be collected and disposed of off-site. The layout consists of six subsurface hot water injection points and two groundwater/NAPL extraction wells. The six injection wells were placed along the approximate NAPL plume boundary and the two extraction wells were centered within the injection well locations based on capture calculations performed by EEEI. The wells are oriented to reduce travel time between injection and extraction points in order to limit heat loss in the subsurface aquifer. The extraction wells pump contaminated groundwater and NAPL from 35 feet below ground surface (bgs) to an on-site treatment building. The main components of the hot water generation system are stored in a separate room, immediately adjacent to the groundwater treatment building. Treated groundwater is discharged via underground piping to the combined sewer system collection piping located in the alley west of the site. The sewer system ultimately discharges to the Chain of Rocks Barge Canal after being processed through the GCRWWTP. All influent groundwater has NAPL removed; a portion of this water is directed to the hot water generation system which is pumped to the six subsurface injection wells. A Site Plan Map depicting the location of the wells and site layout is presented as Figure 1.

Bodine monitored the GWOU on a weekly basis. Monitoring activities on the GWOU were completed to evaluate if the system was operating efficiently, conduct any maintenance, record required operating parameters, and collect operational samples and effluent discharge samples. Copies of the Weekly Operational Logs are attached in Appendix A. The operational samples were collected on a monthly basis. The effluent samples for the GCRWWTP are collected bi-annually and submitted to the GCRWWTP.

The GWOU operated almost continuously during this quarter. The system was down a few days for bi-weekly cleaning activities and installation of new treatment equipment. System maintenance activities this quarter consisted of the following:

- Cleaning of the heat exchanger and feed tank with a descaling acid;
- Completed construction of road adjacent to the injection and extraction wells, and installation of drainage culverts to divert storm water to the retention pond;
- Removed mechanical flow meters from extraction wells due to corrosion and causing low flow alarms;
- The inflatable packer in Injection Well #4 was losing air pressure, so the stainless steel fittings were tightened and the packer was re-inflated;
- Installed new bag filter housings before the organoclay treatment tank and the after the activated carbon treatment tank;
- Installed PVC piping from feed tank to the heat exchanger to simplify cleaning of the heat exchanger with the descaling acid;
- Plocher Construction installed walls to enclose the boiler and generator;
- Replaced the Low-Low float in the feed tank; and

- Replaced the belt in the vapor phase blower fan.
- 2.2 **GWOU System Performance.** Samples are collected monthly from four (4) locations throughout the GWOU. The locations are as follows: GWOUA (Influent prior to NAPL Separator) GWOUB (Influent after NAPL Separator), GWOUC (Influent after bag filters), and GWOUE (Effluent). The GWOUA sample is analyzed for SVOCs and O&G, the GWOUB sample is analyzed for O&G, TSS, and pH, the GWOUC sample is analyzed for O&G and TSS, and the GWOUE sample is analyzed for SVOCs, BOD, TSS, and pH. The laboratory analytical results from these sampling locations are reviewed to evaluate the efficiency of the GWOU. Specifically, during the fourth quarter of 2010, samples were collected on October 13, November 30, and December 14, 2010. Based on review of the analytical results, the GWOU is efficiently removing the SVOC constituents. However, the O&G analytical results indicate the NAPL separator is not efficiently removing the NAPL. The samples from November and December indicate the O&G concentrations increasing significantly after the NAPL separator. The bag filters before the organoclay and the organoclay are removing a significant amount of NAPL. The bag filters are required to be changed twice a week due to binding from NAPL and other miscellaneous solids.

The GCRWWTP requires the effluent to be sampled biannually. A sample of the effluent was collected November 4, 2010 and sent to Test America – Chicago for analysis. After review of the analytical results, the effluent contained small concentrations of several metals, but all the concentrations were well below the Wastewater Discharge Limitations listed in Part II of the GCRWWTP Industrial Pretreatment Program Remediation Discharge Permit Number IWDP-360. Effluent data for the GCRWWTP are presented on Table 1. The associated laboratory analytical reports are presented in Appendix B. The GWOU is currently performing within the GCRWWTP discharge permit requirements. In addition, the GCRWWTP requests the total volume of wastewater discharged monthly. For the fourth quarter of 2010, the GWOU discharged 977,580 gallons of treated water to the GCRWWTP.

- 2.3 **Contaminant Mass Removal.** Influent groundwater samples were collected prior to treatment activities (activated carbon) at the sampling port of influent (GWOUA) from extraction wells (EW01 and EW02) to determine the SVOC loading to the treatment system. The influent samples were collected on October 13, November 30, and December 14, 2010. These samples are used to determine the mass of SVOCs removed from the groundwater by the system and to estimate the treatment system efficiency (Table 2). The associated laboratory analytical reports are presented in Appendix C.

Total mass removal was calculated using the average total SVOC concentrations (9054 µg/l [Table 2]) detected in the influent (GWOUA) samples minus the average total SVOC concentrations (35 µg/l [Table 3]) in the effluent (GWOUE) and the total average flow rate (56,700 gallons per day) of the system. The average flow rate was determined by utilizing 35 gpm as the average flow rate. Therefore, the total SVOC mass removed from the site during the fourth quarter of 2010 is approximately 317 lbs. This is the initial report after the GWOU was determined Operational and Functional by the USEPA and

Illinois EPA in September of 2010, so this will be the initial SVOC mass removal calculation.

In addition, the total SVOC loading of the system and the SVOC concentration present in the effluent sample were used to determine the SVOC removal efficiency of the system. Based on the average total SVOC concentration ( $9054 \mu\text{g/l}$ ) in the influent samples and the average effluent SVOC concentration of  $35 \mu\text{g/l}$ , the system is currently removing approximately 99% of the SVOCs entering the system. Therefore, the activated carbon treatment performance is acceptable. The mass removal data is presented on Table 4. A time versus mass removal graph will be included in the next quarterly report.

### **3.0 GROUNDWATER MONITORING ACTIVITIES**

The monitoring plan for the Remedial Action consists of sampling select monitoring wells at the site. The monitoring wells to be sampled were determined by Ecology and Environment in the Remedial Design for this site and are listed in the Operation & Maintenance Plan. There are ten (10) monitoring wells selected for quarterly monitoring and an additional twelve (12) monitoring wells selected for annual monitoring. In addition to groundwater sampling, groundwater levels were measured in monitoring wells across the site to monitor the capture zones from operating extraction wells and identify potential plume migration. The following is a discussion of the groundwater monitoring results for the fourth quarter monitoring period of 2010.

- 3.1 Hydrogeology and System Influence.** Groundwater levels were measured in the monitoring well and extraction well network on October 11, 2010. The water level measurements (Table 5) were entered into Surfer 8 and a data grid was established utilizing the Kriging Method. A contour map was then developed for the monitoring well water elevations.

Based on review of the water table contour maps (Figures 2-4), shallow groundwater flow at the site is predominantly to the south, southwest and west with a western component of groundwater flow in the southern half of the site. The intermediate and deep groundwater flow shows primarily a southerly component. These groundwater flow directions are consistent with previous observations documented by EEEI.

- 3.2 Groundwater Quality.** Groundwater quality results from the October 2010 sampling event were evaluated relative to historical monitoring results to determine potential contaminant trends present at the site and in the vicinity of individual extraction wells. Bodine utilized the November 2008 and September 2009 sampling results provided by EEEI to evaluate the data. A summary of the groundwater analytical results collected by EEEI are listed in Tables 6 and 7. Based on laboratory analytical results, contaminant concentrations appear to be increasing in groundwater in the monitoring wells located in the treatment zone and MW-8S. However, the analytical results of the monitoring well down gradient of the treatment system did not indicate an increase of the contaminant concentrations.

The 2,4-Dimethylphenol concentration in MW-5S decreased to 13,000 µg/l from 19,000 µg/l in November 2008 sampling event. The 2-Metylphenol concentration decreased to 2,700 µg/l from 7,300 µg/l in the previous sampling event. The Naphthalene concentration increased to 35,000 µg/l from 6,700 µg/l and the pentachlorophenol (PCP) concentration increased to 1,300 µg/l from 780 µg/l in the previous sampling event. All of the above chemicals are mentioned as Chemicals of Potential Concern (COPC) in the ROD and all the concentrations are above the proposed CUOs listed in the ROD. In addition, there are a couple of chemicals with concentrations above the Illinois EPA TACO Tier 1 groundwater objectives but do not have proposed CUOs in the ROD. The Fluorene concentration increased to 350 µg/l from 130 µg/l and the Phenol concentration decreased to 210 µg/l from 1,600 µg/l in the previous November 2008 sampling event.

These concentrations are above the Illinois EPA Tier 1 groundwater objectives. The 3&4 Methylphenol concentration decreased to 4,300 µg/l from 12,000 µg/l in the previous sampling event. There are no proposed CUOs or Illinois EPA Tier 1 groundwater objectives established for 3&4 Methylphenol. In addition, there are several other SVOCs with concentrations detected above the laboratory reporting limit in MW-5S. A summary of the groundwater analytical results are listed in Table 8. Monitoring well MW-5S is located in the former 22<sup>nd</sup> lagoon area and in the groundwater treatment zone. The sample was collected from the middle of the screen which is approximately 22 feet below ground surface (bgs).

Bodine attempted to sample MW-5D, but free product was observed flowing through the sample tubing and into the purge water container. Since free product was observed, sampling of MW-5D was not completed. The analytical data collected by EEEI from MW-5D in November 2008 indicated several SVOC concentrations above the laboratory reporting limit but below the Cleanup Objectives (CUO) listed in the Record of Decision (ROD). Monitoring well MW-5D is located in the former 22<sup>nd</sup> lagoon area and in the groundwater treatment zone.

The benzo(a)anthracene concentration (0.32 µg/l) in MW-20 is above the proposed CUO for this site. The PCP concentration decreased to 0.17 µg/l from 12 µg/l in the 2009 sampling event conducted by EEEI. In addition, there are several SVOC concentrations above the laboratory reporting limits in MW-20 but the concentrations are below the proposed CUOs and the Illinois EPA TACO Class I Groundwater Objectives. Monitoring well MW-20 is located in the groundwater treatment zone and is northwest of EW-1. The groundwater sample was collected from 35 feet below bgs.

Bodine attempted to sample MW-21, but free product was observed floating on the top of the water. The interphase probed detected 4.6 feet of LNAPL on the surface of the water. The sampling by EEEI in 2009 indicated several SVOC concentrations above the CUOs in MW-21. Monitoring well MW-21 is located in the groundwater treatment zone and is southwest of the extraction well (EW-2).

The 2,4-Dimethylphenol concentration in MW-22 increased to 9,000 µg/l from 380 µg/l in the previous 2009 sampling event. The 2-Methylphenol concentration increased to 2,000 µg/l from 190 µg/l in the previous sampling event. The naphthalene concentration increased to 17,000 µg/l from 3,400 µg/l in the previous sampling event. The PCP concentration increased to 1,200 µg/l from 310 µg/l previous sampling event. The Chrysene concentration decreased to 1.9 µg/l from 12 µg/l in the previous sampling event. The Chrysene concentration was above the Illinois EPA TACO Class I groundwater standard but below the proposed ROD CUO. The Benzo(a)anthracene concentration decreased to below the laboratory reporting limit from 14 µg/l. The Benzo(b)fluoranthene concentration decreased to below the laboratory limit from 11 µg/l. The Benzo(k)fluoranthene concentration decreased to below the laboratory limit from 4.4 µg/l. All the above mentioned chemicals are listed as Chemicals of Potential Concern (COPC) in the ROD and all the concentrations are above the proposed CUOs listed in the

ROD. In addition, there are several chemicals with concentrations above the Illinois EPA TACO Tier 1 groundwater objectives but do not have proposed CUOs in the ROD. Benzo(a)pyrene and Indeno(1,2,3-c,d)pyrene had concentrations above Illinois EPA TACO Tier 1 groundwater objectives during the September 2009 sampling event performed by EEEI. The phenol concentration increased to 140 µg/l from 51 µg/l and was above the Illinois EPA TACO Tier 1 groundwater objective during the 2010 fourth quarter groundwater monitoring event. Monitoring well MW-22 is located in the groundwater treatment zone and is northeast of the extraction well (EW-1). The groundwater sample was collected from 35 feet bgs.

The 2,4-Dimethylphenol concentration in MW-23 increased to 3,800 µg/l from 14 µg/l in the previous sampling event. The 2-Methylphenol concentration increased to 1,600 µg/l from below the laboratory reporting limit in the previous sampling event. The Naphthalene concentration increased to 29,000 µg/l from 4,000 µg/l in the previous sampling event. The PCP concentration increased to 1,900 µg/l from 64 µg/l the previous sampling event. The Benzo(a)anthracene concentration decreased to 2.4 µg/l from 7.0 µg/l. The Benzo(k)fluoranthene concentration decreased to 1.1 µg/l from 4.1 µg/l. The Chrysene concentration decreased to 2.3 µg/l from 5.0 µg/l in the previous sampling event. All the above mentioned chemicals are listed as COPC in the ROD and all the concentrations are above the proposed CUOs listed in the ROD. In addition, there are several chemicals with concentrations above the Illinois EPA TACO Tier 1 groundwater objectives but do not have proposed CUOs in the ROD. The Benzo(a)pyrene concentration decreased to below the laboratory reporting limit from 3.1 µg/l during the September 2009 sampling event performed by EEEI. The Acenaphthene (480 µg/l), Fluorene (280 µg/l), and Phenol (390 µg/l) concentrations were above the Illinois EPA TACO Tier 1 groundwater objectives during the 2010 fourth quarter groundwater monitoring event. The groundwater sample was collected from 35 feet bgs.

Samples were also collected from the extraction wells. The extraction wells had not been sampled previously, so these are the first analytical results for the extraction wells. In EW-1, the Benzo(a)anthracene concentration (1.5 µg/l), Benzo(k)fluoranthene concentration (0.6 µg/l), Naphthalene concentration (530 µg/l), and PCP concentration (3.4 µg/l) were all above the proposed CUOs listed in the ROD. The Benzo(k)fluoranthene (0.44 µg/l) concentration in EW-1 was above the Illinois EPA TACO Tier 1 groundwater objective but below the proposed CUOs. In addition, there were several SVOC concentrations above the laboratory reporting limit but below the proposed CUOs and Illinois EPA Tier 1 groundwater objectives.

The analytical results indicate that the groundwater from EW-2 contains higher concentrations of SVOCs than EW-1. In EW-2, the 2,4-Dimethylphenol concentration (480 µg/l), 2-Methylphenol (420 µg/l), Benzo(a)anthracene concentration (72 µg/l), Benzo(b)fluoranthene (36 µg/l), Benzo(k)fluoranthene (20 µg/l), Chrysene (55 µg/l), Naphthalene (5,500 µg/l), and PCP concentration (170 µg/l) were all above the proposed CUOs listed in the ROD. The Acenaphthene concentration (530 µg/l), Benzo(a)pyrene concentration (0.55 µg/l), Fluoranthene concentration (300 µg/l), Fluorene concentration

(390 µg/l), Ideno(1,2,3-c,d)pyrene concentration (10 µg/l), Dibenz(a,h)anthracene concentration (4.0 µg/l), Phenol concentration (100 µg/l), and Pyrene concentration (220 µg/l) in EW-2 were above the Illinois EPA TACO Tier 1 groundwater objectives. In addition, there were several SVOC concentrations above the laboratory reporting limit but below the proposed CUOs and Illinois EPA Tier 1 objectives.

Bodine sampled monitoring well (MW-18S) to determine if the COPC are migrating down gradient of the treatment zone. Based on the groundwater analytical results from MW-18S, it does not appear that COPC are migrating down gradient of the treatment zone. The PCP concentration decreased to 0.10 µg/l from 4.9 µg/l during the November 2008 sampling event performed by EEEI.

As part of the quarterly monitoring plan, the monitoring wells in the former PCP treatment area were sampled during this sampling event to monitor the contamination in this area. The PCP concentration in MW-8S increased to 86,000 µg/l from 69,000 µg/l in the December 2009 sampling event. This concentration is well above the proposed CUO. In addition, there were several SVOC concentrations in MW-8S above the laboratory reporting limit but below the proposed CUOs and Illinois EPA Tier 1 objectives. The PCP concentration in MW-8M decreased to 12 µg/l from 69 µg/l in the December 2009 sampling event. This concentration is above the proposed CUO. In addition, there were a few SVOC concentrations in MW-8M above the laboratory reporting limit but below the proposed CUOs and Illinois EPA Tier 1 objectives. The PCP concentration in MW-8D decreased to below the laboratory reporting limit from 2.2 µg/l in the November 2008 sampling event. In addition, there were a few SVOC concentrations in MW-8D above the laboratory reporting limit but well below the proposed CUOs and Illinois EPA Tier 1 objectives.

The following monitoring and extraction wells have concentrations above the proposed CUOs, Illinois EPA TACO Tier 1 Groundwater Objectives or both:

- MW-5S
- MW-8S
- MW-8M
- MW-20
- MW-22
- MW-23
- EW-1
- EW-2

Groundwater analytical data is summarized in Tables 6, 7, 8, 9, and 10. Groundwater analytical reports including chain-of-custody documentation for the October 2010 sampling event are included as Appendix D. Copies of the groundwater sampling forms are included as Appendix E. A photograph log is included in Appendix F. Time versus concentration graphs will be created for extraction wells EW-1 and EW-2 and will be included in the next quarterly report.

#### 4.0 CONCLUSIONS AND RECOMENDATIONS

Based on the data generated during the operating period from October 1, 2010 through December 31, 2010 the following conclusions are presented.

- The GWOU operated within acceptable levels as determined by effluent sampling results. Approximately 363 lbs of SVOC contaminant mass was removed from the groundwater during the fourth quarter of 2010.
- The water treatment chemicals have improved the operating time to over 2 weeks before the GWOU has to be shut down to chemically remove iron and calcium carbonate scale from the heat exchanger tubes.
- The NAPL separator is not efficiently removing the NAPL entering the treatment system. The system operational samples indicate more O&G after the NAPL separator than what is entering the NAPL separator. In addition, the influent tank and bag filters are covered with NAPL.
- Shallow groundwater flow is predominantly to the south with a western component in the southern half of the site. The intermediate and deep groundwater flow shows primarily a southerly component.
- The 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol, Naphthalene, and PCP concentrations are increasing in the monitoring wells located in the treatment zone. The concentrations are well above the proposed CUOs.
- The down gradient well (MW-18S) from the treatment zone did not display higher COPC concentrations from the previous sampling event, so it appears the COPC are not migrating down gradient from the treatment zone.
- The PCP concentration (86,000 µg/l) in MW-8S has increased from the previous sampling event in December of 2009.
- The PCP concentration (12 µg/l) in MW-8M has decreased from the previous sampling event in December of 2009.
- The duplicate samples collected were analyzed and the relative prevent difference (RPD) between the duplicate samples were within the acceptable RPD limits.

## 5.0 LIMITATIONS OF INVESTIGATION

This report was prepared under constraints of cost, time and scope, and reflects a limited assessment and evaluation based on data collected at discrete locations on or near the site. Conditions may vary across the site. The assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusions and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentrations of certain chemical constituents in samples taken from the subject property. Bodine has no control over such testing and analysis and therefore, disclaims any responsibility for any errors and omissions arising there from.

**TABLES**

**Table 1**  
**IEPA - Jennison Wright Summary of Compounds Detected in GCRWWTP Effluent Sample**  
**November 2010**

		Daily Discharge Limitation	
<b>Date</b>			11/4/2010
<b>Sample ID Number</b>	Reporting Limit		GCRWWTP-GWOU-E-11042010
<b>Units</b>	mg/L	mg/L	mg/L
<b>Metals</b>			
Arsenic	0.0050	0.5	J 0.0032
Barium	0.0050	11	0.35
Cadmium	0.0010	1.2	ND
Chromium	0.0050	9	ND
Copper	0.0050	3	J 0.0013
Lead	0.0025	0.5	J 0.0022
Manganese	0.0050	7	0.47
Mercury	0.0002	0.001	ND
Nickel	0.0050	2.6	ND
Selenium	0.0050	3	ND
Silver	0.0025	0.4	ND
Zinc	0.0100	5	J,B 0.0069
FOG	5.0	200	ND
Iron	0.1000	—	4.8
Cyanide	0.0100	1.25	ND
Total Phenols	0.0050	2.5	0.06
BOD	2.0	—	2.5
TSS	5.0	—	ND
<b>Semi-Volatiles</b>			
	ug/L	ug/L	ug/L
2,4-Dimethylphenol	4.7	—	8.2
2-Methylphenol	4.7	—	7.3
Acenaphthene	4.7	—	J 3.3
Acenaphthylene	4.7	—	ND
Anthracene	4.7	—	ND
Benzo(a)anthracene	4.7	—	ND
Benzo(a)pyrene	4.7	—	ND
Benzo(b)fluoranthene	4.7	—	ND
Benzo(ghi)perylene	4.7	—	ND
Benzo(k)fluoranthene	4.7	—	ND
bis(2-Ethylhexyl) phthalate	4.7	—	ND
Chrysene	4.7	—	ND
Dibenzofuran	4.7	—	ND
Fluoranthene	4.7	—	ND
Fluorene	4.7	—	ND
Indeno(1,2,3-c,d)pyrene	4.7	—	ND
Naphthalene	4.7	—	ND
Pentachlorophenol	19	—	ND
Phenanthrene	4.7	—	ND
Phenol	9.3	—	ND
Pyrene	4.7	—	ND

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B - Compound was found in the blank and sample.

either precision or accuracy possibly due to matrix effects.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds GCRWWTP Discharge Limitation**

**Table 2**  
**IEPA - Jennison Wright Summary of VOCs and SVOCs Detected in System Influent**  
**4th Quarter 2010**

ROD Proposed Cleanup Objectives		IEPA TACO Class I Groundwater Cleanup Objectives				
Date				10/13/2010	11/30/2010	12/14/2010
Sample ID Number		QC Flag	GWOUA (10132010)	QC Flag	GWOUA (11302010)	QC Flag
Units	µg/l		µg/l		µg/l	
<b>Volatiles</b>						
Benzene	10	5	NS	NS	40	
Toluene		1000	NS	NS	74	
Ethylbenzene		700	NS	NS	90	
<b>Semi-Volatiles</b>						
2,4-Dimethylphenol	200	140	220	360	350	
2-Methylphenol	500	350	200	310	310	
3&4 Methylphenol			470	640	640	
Acenaphthene	—	420	380	510	570	
Acenaphthylene	—	210	J	16	J	22
Anthracene	—	2100		61	95	130
Benzo(a)anthracene	0.13	0.13	J	46	65	96
Benzo(a)pyrene	—	0.2	J	22	34	J
Benzo(b)fluoranthene	0.18	0.18	J	23	42	58
Benzo(ghi)perylene	—	210		ND	J	15
Benzo(k)fluoranthene	0.4	0.17	J	16	J	18
Chrysene	4	1.5	J	41	56	79
Dibenzofuran	—	7		250	340	390
Fluoranthene	—	280		210	320	450
Fluorene	—	280		270	380	450
Indeno(1,2,3-c,d)pyrene	—	0.43		ND	J	14
Naphthalene	400	140	3600	5100	5400	
Pentachlorophenol	1	1	J	130	180	J
Phenanthrene	—	210		490	770	1200
Phenol	—	100	J	46	57	J
Pyrene	—	210		150	220	290
<b>Total VOCs &amp; SVOCs</b>			<b>6641</b>		<b>9548</b>	
<b>Quarterly VOC &amp; SVOC Average</b>					<b>9054</b>	

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

NS - Not Sampled

**Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective**

Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/11.

**Table 3**  
**IEPA - Jennison Wright Summary of Semi-Volatile Organic Compounds Detected in System Effluent**  
**4th Quarter 2010**

		GCRWWTP Daily Discharge Limitations				
Date		10/13/2010		11/30/2010		12/14/2010
Sample ID Number		QC Flag	GWOUE (10132010)	QC Flag	GWOUE (11302010)	QC Flag
Units	µg/l		µg/l		µg/l	µg/l
<b>Semi-Volatiles</b>						
2,4-Dimethylphenol	—	J	2.2		9.4	21
2-Methylphenol	—		ND	J	4.1	22
3 & 4 Methylphenol	—		ND	J	1.2	21
Acenaphthene	—		ND		5.7	J 2.5
Acenaphthylene	—		ND		ND	ND
Anthracene	—		ND		ND	ND
Benzo(a)anthracene	—		ND		ND	ND
Benzo(a)pyrene	—		ND		ND	ND
Benzo(b)fluoranthene	—		ND		ND	ND
Benzo(ghi)perylene	—		ND		ND	ND
Benzo(k)fluoranthene	—		ND		ND	ND
bis(2-Ethylhexyl) phthalate	—		11		ND	ND
Chrysene	—		ND		ND	ND
Dibenzofuran	—		ND		ND	ND
Fluoranthene	—		ND		ND	ND
Fluorene	—		ND		ND	ND
Indeno(1,2,3-c,d)pyrene	—		ND		ND	ND
Naphthalene	—		ND	J	3.1	ND
Pentachlorophenol	—		ND		ND	ND
Phenanthrene	—		ND		ND	ND
Phenol	—		ND		ND	J 2.8
Pyrene	—		ND		ND	ND
Total SVOCs			13.2		23.5	69.3
Quarterly Average					35	

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

Value exceeds GCRWWTP Daily Discharge Limitation

**Table 4**  
**Mass Removal**  
**NAPL Separation/Hot Water Generation/Groundwater Treatment System**  
Jennison Wright NPL Site  
Granite City, Illinois  
Project Number 119386-12

Sample ID	Date Units	Total SVOC µg/l	Flow GPD		Total VOC Mass Removed per Day				Length of Quarter	Total Mass per Quarter lbs	Cumulative Mass Removed lbs
	10/1-12/31/2010	9019	50400	Liters per Day	µg	mg	kg	lbs	Days Operating		
GWQUE									84	317.9830875	317.9830875

Notes

GPD = gallons per day

$\mu\text{g}$  = micrograms

**mg = milligrams**

**kg = kilograms**

lbs = pounds

**Table 5**  
**Groundwater Elevation Summary**  
Jennison Wright NPL Site  
Granite City, Illinois  
Bodine Project Number 119386-12

Well ID	Date	Well Depth (Feet bgs)	Top of Casing Elevation (MSL)	Screen Interval (Feet bgs/MSL)	Depth of Water (Feet bgs)	Groundwater Elevation (MSL)
<b>MW-1S</b>	10/11/2010	26.00	424.53	16-26	16.10	408.43
<b>MW-1D</b>	10/11/2010	117.00	423.84	107-117	15.34	408.50
<b>MW-2S</b>	10/11/2010	23.00	419.06	13-23	10.89	408.17
<b>MW-3S</b>	10/11/2010	25.40	422.01	15.4-25.4	14.38	407.63
<b>MW-3D</b>	10/11/2010	115.00	422.35	105-115	14.65	407.70
<b>MW-4S</b>	10/11/2010	28.00	423.97	18-28	16.55	407.42
<b>MW-5S</b>	10/11/2010	27.00	424.51	17-27	16.66	407.85
<b>MW-5D</b>	10/11/2010	110.50	423.04	100.5-110.5	15.46	407.58
<b>MW-6M</b>	10/11/2010	64.60	422.79	54.6-64.6	15.32	407.47
<b>MW-6D</b>	10/11/2010	113.50	422.58	103.5-113.5	15.13	407.45
<b>MW-8SR</b>	10/11/2010	25.00	423.91	15-25	16.82	407.09
<b>MW-8MR</b>	10/11/2010	52.50	423.05	42.5-52.5	15.83	407.22
<b>MW-8D</b>	10/11/2010	117.00	424.57	107-117	17.47	407.10
<b>MW-10SR</b>	10/11/2010	28.50	423.70	18.5-28.5	15.84	407.86
<b>MW-11S</b>	10/11/2010	27.00	425.23	17-27	18.58	406.65
<b>MW-11M</b>	10/11/2010	55.50	424.86	45.5-55.5	18.12	406.74
<b>MW-12S</b>	10/11/2010	26.00	419.72	11-26	11.26	408.46
<b>MW-13S</b>	10/11/2010	28.00	424.84	13-28	16.68	408.16
<b>MW-14S</b>	10/11/2010	29.50	424.58	14.5-29.5	16.72	407.86
<b>MW-15S</b>	10/11/2010	29.50	423.54	14.5-29.5	15.71	407.83
<b>MW-16S</b>	10/11/2010	31.50	423.70	16.5-31.5	16.10	407.60
<b>MW-17S</b>	10/11/2010	31.00	422.87	16-31	15.43	407.44
<b>MW-18S</b>	10/11/2010	31.00	423.54	16-31	16.17	407.37
<b>MW-19S</b>	10/11/2010	32.00	424.46	17-32	17.63	406.83
<b>MW-20</b>	10/11/2010	119.50	425.20	9.5-119.5	17.39	407.81
<b>MW-21</b>	10/11/2010	119.50	424.28	9.5-119.5	16.20	408.08
<b>MW-22</b>	10/11/2010	119.50	424.83	9.5-119.5	16.93	407.90
<b>MW-23</b>	10/11/2010	119.50	424.77	9.5-119.5	16.88	407.89

Notes:

- Top of Casing elevation performed by Juneau & Associates - June 2011

NR = Not Recorded

CNL = Could not locate

MSL = Mean Sea Level

Feet bgs = Feet below ground surface

MW-21 had 4.6 feet of free product.

**Table 6**  
**IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells**  
**November 2008**

		IEPA TACO Class I Groundwater Cleanup Objectives		Nov-08	Nov-08	Nov-08	Nov-08	Nov-08	Nov-08	Nov-08	Nov-08
Date	ROD Proposed Cleanup Objectives	Sample ID Number	Method	µg/L	µg/L	MW-2S	MW-5S	MW-5S DUP	MW-5D	MW-6M	MW-6D
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<b>Semi-Volatiles</b>											
2,4-Dimethylphenol	8270C	200		140		ND	<b>19000</b>	<b>18000</b>	4.2 J	ND	ND
2-Methylphenol	8270C	500		350		ND	<b>7300</b>	<b>8500</b>	4	ND	ND
3 & 4 Methylphenol	8270C					ND	<b>12000</b>	<b>13000</b>	5.2	ND	ND
2,4,5-Trichlorophenol	8270C			700		ND	54 J	61 J	ND	ND	ND
Acenaphthene	8270C	---		420		ND	320	390	ND	ND	ND
Acenaphthylene	8270C	---		210		ND	40	50	ND	ND	ND
Anthracene	8270C	---		2100		ND	12	11	ND	ND	ND
Benzo(a)anthracene	8270C	0.13		0.13		ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	8270C	---		0.2		ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18		0.18		ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	8270C	---		210		ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4		0.17		ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C			6		ND	ND	ND	ND	ND	ND
Carbazole	8270C					ND	470	490	ND	ND	ND
Chrysene	8270C	4		1.5		ND	ND	ND	ND	ND	ND
Dibenzofuran	8270C	---		7		ND	190	230	ND	ND	ND
Fluoranthene	8270C	---		280		ND	20	29	ND	ND	ND
Fluorene	8270C	---		280		ND	130	150	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	8270C	---		0.43		ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	8270C			210		ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	8270C			3		ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C			600		ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400		140	0.21 J	<b>6700</b>	<b>15000</b>	11	0.48 J	0.59 J	
2-Methylnaphthalene	8270C			280		ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	8270C					ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1		1	<b>1.4</b>	<b>780</b>	<b>770</b>	ND	ND	0.18	
Phenanthrene	8270C	---		210		ND	120	150	ND	ND	ND
Phenol	8270C	---		100		ND	<b>1600</b>	<b>1900</b>	ND	ND	ND
Pyrene	8270C	---		210		ND	12	18	ND	ND	ND

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds TACO Class I Groundwater Remediation Objective**

**or ROD Cleanup Objective**

Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/11.

**Table 7**  
**IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells**  
**EEEI December 2009**

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives	Dec-09	Dec-09	Dec-09	Dec-09	Dec-09	Dec-09	Dec-09
Sample ID Number	Method			MW-8S	MW-8M	MW-20D	MW-21D	MW-22D	MW-23D	MW-23DD
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<b>Semi-Volatiles</b>										
2,4-Dimethylphenol	8270C	200	140	ND	ND	ND	<b>190 J</b>	<b>380</b>	14 J	18 J
2-Methylphenol	8270C	500	350	ND	ND	ND	97	190	ND	14 J
3 & 4 Methylphenol	8270C			6.2 J	ND	ND	140	390	26	27
2,4,5-Trichlorophenol	8270C		700	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	8270C	---	420	13	5.1	0.46 J	<b>760</b>	240	220	220
Acenaphthylene	8270C	---	210	ND	ND	ND	ND	13	14	15
Anthracene	8270C	---	2100	2.1 J	ND	ND	400	75	ND	ND
Benzo(a)anthracene	8270C	0.13	0.13	ND	ND	ND	<b>220</b>	<b>14</b>	7	<b>6.1</b>
Benzo(a)pyrene	8270C	---	0.2	ND	ND	ND	<b>130</b>	<b>8.7</b>	<b>3.1</b>	<b>3.2</b>
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	ND	<b>180</b>	<b>11</b>	<b>4.1</b>	<b>4.4</b>
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	52	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	ND	<b>58</b>	<b>4.4</b>	<b>1.7 J</b>	<b>1.6 J</b>
Bis(2-ethylhexyl) phthalate	8270C		6	ND	ND	ND	ND	ND	ND	ND
Carbazole	8270C			12 J	ND	ND	440	270	420	450
Chrysene	8270C	4	1.5	ND	ND	ND	<b>190</b>	<b>12</b>	<b>5 J</b>	<b>6</b>
Dibenzofuran	8270C	---	7	ND	ND	ND	<b>560</b>	<b>170</b>	<b>130</b>	<b>130</b>
Fluoranthene	8270C	---	280	2.3 J	ND	ND	<b>1200</b>	110	54	56
Fluorene	8270C	---	280	14	0.94 J	0.23 J	<b>660</b>	160	130	140
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	ND	<b>49</b>	<b>3.7</b>	<b>1.3 J</b>	<b>1.4 J</b>
Benzo(g,h,i)perylene	8270C		210	ND	ND	ND	ND	3.7 J	ND	ND
Dibenz(a,h)anthracene	8270C		3	ND	ND	ND	<b>18</b>	1.4 J	ND	ND
1,2-Dichlorobenzene	8270C		600	ND	ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	74	1.6	9.2	<b>7900</b>	<b>3400</b>	<b>4000</b>	<b>4700</b>
2-Methylnaphthalene	8270C		280	130	ND	0.6	2200	110	140	150
4-Chloro-3-methylphenol	8270C			ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	<b>69000</b>	<b>69</b>	<b>12 J</b>	<b>22000</b>	<b>310</b>	<b>64 J</b>	<b>70 J</b>
Phenanthrene	8270C	---	210	20	ND	0.22 J	2700	300	210	210
Phenol	8270C	---	100	ND	ND	ND	ND	51 J	ND	ND
Pyrene	8270C	---	210	1.4 J	ND	ND	<b>880</b>	64	31	32

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds TACO Class I Groundwater Remediation Objective**

**or ROD Cleanup Objective**

Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/11.

**Table 8**  
**IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells**  
**October 2010**

	ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives		10/12/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010	10/12/2010
Date				MW-5S	MW-5S DUP	MW-8S	MW-8M	MW-8D	MW-18S
Sample ID Number	Method	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
<b>Semi-Volatiles</b>									
2,4-Dimethylphenol	8270C	200	140	<b>13000</b>	<b>13000</b>	ND	ND	ND	ND
2-Methylphenol	8270C	500	350	<b>2700</b>	<b>2500</b>	ND	ND	0.64 J	ND
3 & 4 Methylphenol	8270C			4300	3900	4.8 J	0.56 J	0.78 J	ND
Acenaphthene	8270C	---	420	380	<b>730</b>	11	70	0.10 J	ND
Acenaphthylene	8270C	---	210	750	97	ND	0.83 J	ND	ND
Anthracene	8270C	---	2100	32	33	ND	0.20 J	ND	0.50 J
Benzo(a)anthracene	8270C	0.13	0.13	ND	<b>1.3 J</b>	ND	ND	ND	ND
Benzo(a)pyrene	8270C	---	0.2	ND	<b>34</b>	ND	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	<b>42</b>	ND	ND	ND	ND
Benzo(ghi)perylene	8270C	---	210	ND	15 J	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	<b>18 J</b>	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C		6	ND	ND	ND	1.9 J	1.8 J	ND
Carbazole	8270C			1300	730	ND	4.9	ND	ND
Chrysene	8270C	4	1.5	1.2 J	<b>1.7 J</b>	ND	ND	ND	ND
Dibenzofuran	8270C	---		390	390	12 J	ND	ND	ND
Fluoranthene	8270C	---	280	42	46	ND	ND	ND	0.23 J
Fluorene	8270C	---	280	<b>350</b>	<b>350</b>	13	15	ND	ND
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	<b>14 J</b>	ND	ND	ND	ND
Benzo(g,h,i)perylene	8270C		210	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C		3	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C		600	ND	ND	ND	0.64 J	ND	ND
Naphthalene	8270C	400	140	<b>35000</b>	<b>36000</b>	110	67	11	ND
2-Methylnaphthalene	8270C		280	990	1000	170	0.25 J	ND	ND
4-Chloro-3-methylphenol	8270C			ND	38 J	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	<b>1300</b>	<b>1200</b>	<b>86000</b>	<b>12</b>	ND	0.10 J
Phenanthrene	8270C	---	210	370	380	14	0.17 J	ND	ND
Phenol	8270C	---	100	<b>210</b>	<b>190</b>	ND	ND	ND	ND
Pyrene	8270C	---	210	31	33	ND	ND	ND	0.16 J

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective**

[Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit. Remediation Objectives for Non-TACO Compounds, 3/14/11]

**Table 9**  
**IEPA - Jennison Wright Summary of SVOCs Detected in EW-1**  
**4th Quarter 2010**

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives	
Date	Sample ID Number	Method	µg/L	µg/L
				EW-1
	Units		µg/L	µg/L
<b>Semi-Volatiles</b>				
2,4-Dimethylphenol	8270C	200	140	9.1 J
2-Methylphenol	8270C	500	350	5.4
3 & 4 Methylphenol	8270C			15
Acenaphthene	8270C	---	420	150
Acenaphthylene	8270C	---	210	7.5
Anthracene	8270C	---	2100	8.1
Benzo(a)anthracene	8270C	0.13	0.13	<b>1.5</b>
Benzo(a)pyrene	8270C	---	0.2	<b>0.55</b>
Benzo(b)fluoranthene	8270C	0.18	0.18	<b>0.6</b>
Benzo(ghi)perylene	8270C	---	210	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	<b>0.44</b>
Bis(2-ethylhexyl) phthalate	8270C		6	ND
Carbazole	8270C			51
Chrysene	8270C	4	1.5	1.1
Dibenzofuran	8270C	---	7	99
Fluoranthene	8270C	---	280	18
Fluorene	8270C	---	280	100
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	0.22
Benzo(g,h,i)perylene	8270C		210	0.22 J
Dibenz(a,h)anthracene	8270C		3	ND
1,2-Dichlorobenzene	8270C		600	ND
Naphthalene	8270C	400	140	<b>530</b>
2-Methylnaphthalene	8270C		280	21
4-Chloro-3-methylphenol	8270C			ND
Pentachlorophenol	8151A	1	1	<b>3.4</b>
Phenanthrene	8270C	---	210	130
Phenol	8270C	---	100	4.8
Pyrene	8270C	---	210	11
<b>Total SVOCs</b>				<b>1159</b>

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds TACO Class I Groundwater Remediation Objective  
or ROD Cleanup Objective**

Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/11.

**Table 10**  
**IEPA - Jennison Wright Summary of SVOCs Detected in EW-2**  
**4th Quarter 2010**

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives	
<b>Date</b>				
<b>Sample ID Number</b>		<b>Method</b>		
<b>Units</b>		µg/L	µg/L	µg/L
<b>Semi-Volatiles</b>				
2,4-Dimethylphenol	8270C	200	140	<b>480</b>
2-Methylphenol	8270C	500	350	<b>420</b>
3 & 4 Methylphenol	8270C			1000
Acenaphthene	8270C	---	420	<b>530</b>
Acenaphthylene	8270C	---	210	17
Anthracene	8270C	---	2100	96
Benzo(a)anthracene	8270C	0.13	0.13	<b>72</b>
Benzo(a)pyrene	8270C	---	0.2	<b>31</b>
Benzo(b)fluoranthene	8270C	0.18	0.18	<b>36</b>
Benzo(ghi)perylene	8270C	---	210	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	<b>20</b>
Bis(2-ethylhexyl) phthalate	8270C		6	ND
Carbazole	8270C			320
Chrysene	8270C	4	1.5	<b>55</b>
Dibenzofuran	8270C	---	7	350
Fluoranthene	8270C	---	280	<b>300</b>
Fluorene	8270C	---	280	<b>390</b>
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	<b>10</b>
Benzo(g,h,i)perylene	8270C		210	10
Dibenz(a,h)anthracene	8270C		3	<b>4</b>
1,2-Dichlorobenzene	8270C		600	ND
Naphthalene	8270C	400	140	<b>5500</b>
2-Methylnaphthalene	8270C		280	350
4-Chloro-3-methylphenol	8270C			ND
Pentachlorophenol	8151A	1	1	<b>170</b>
Phenanthrene	8270C	---	210	740
Phenol	8270C	---	100	<b>100</b>
Pyrene	8270C	---	210	<b>220</b>
<b>Total SVOCs</b>			11,221	

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

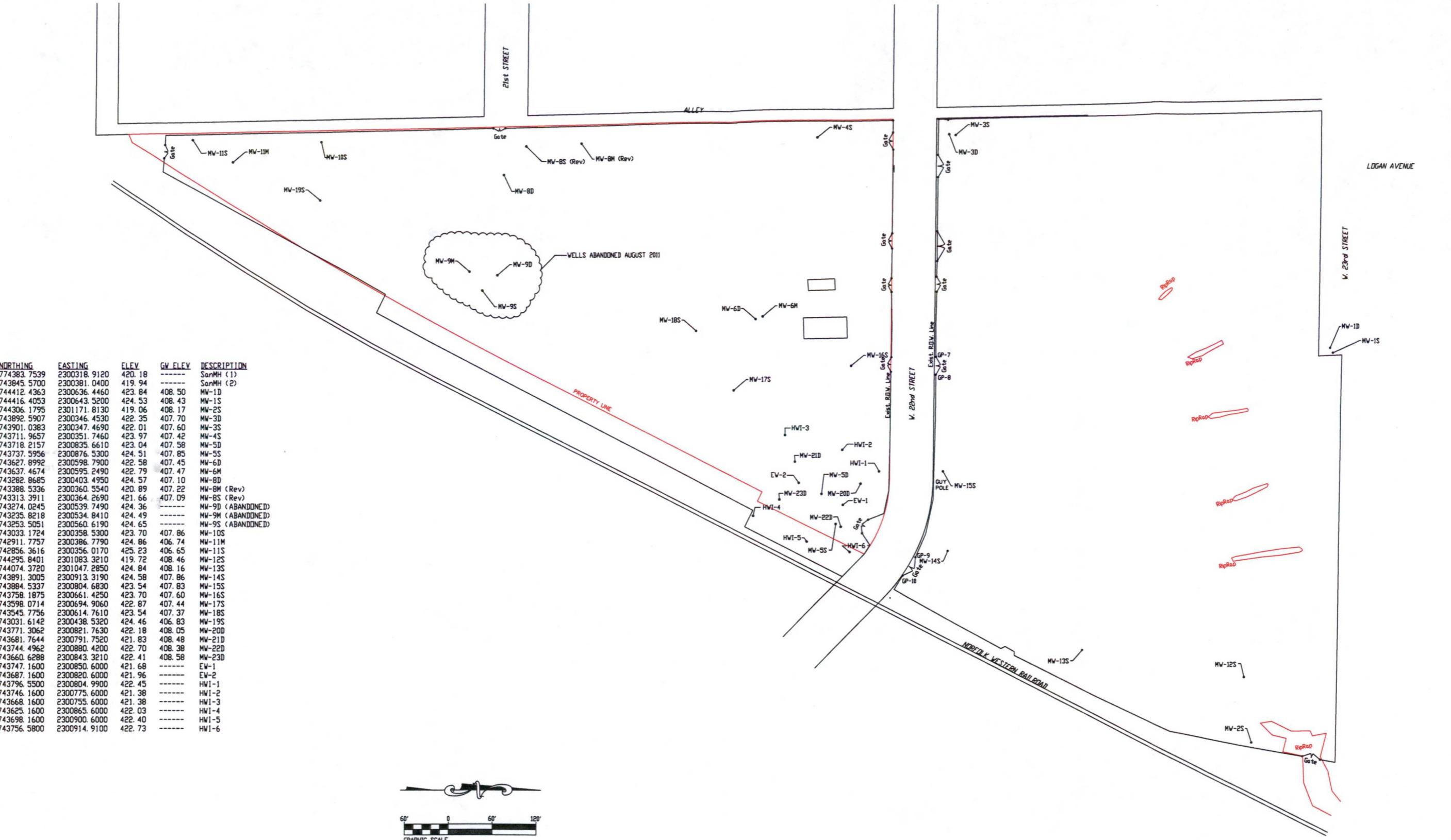
ND - Analyte NOT DETECTED at or above the reporting limit.

N/A - Not Applicable

**Value exceeds TACO Class I Groundwater Remediation Objective  
or ROD Cleanup Objective**

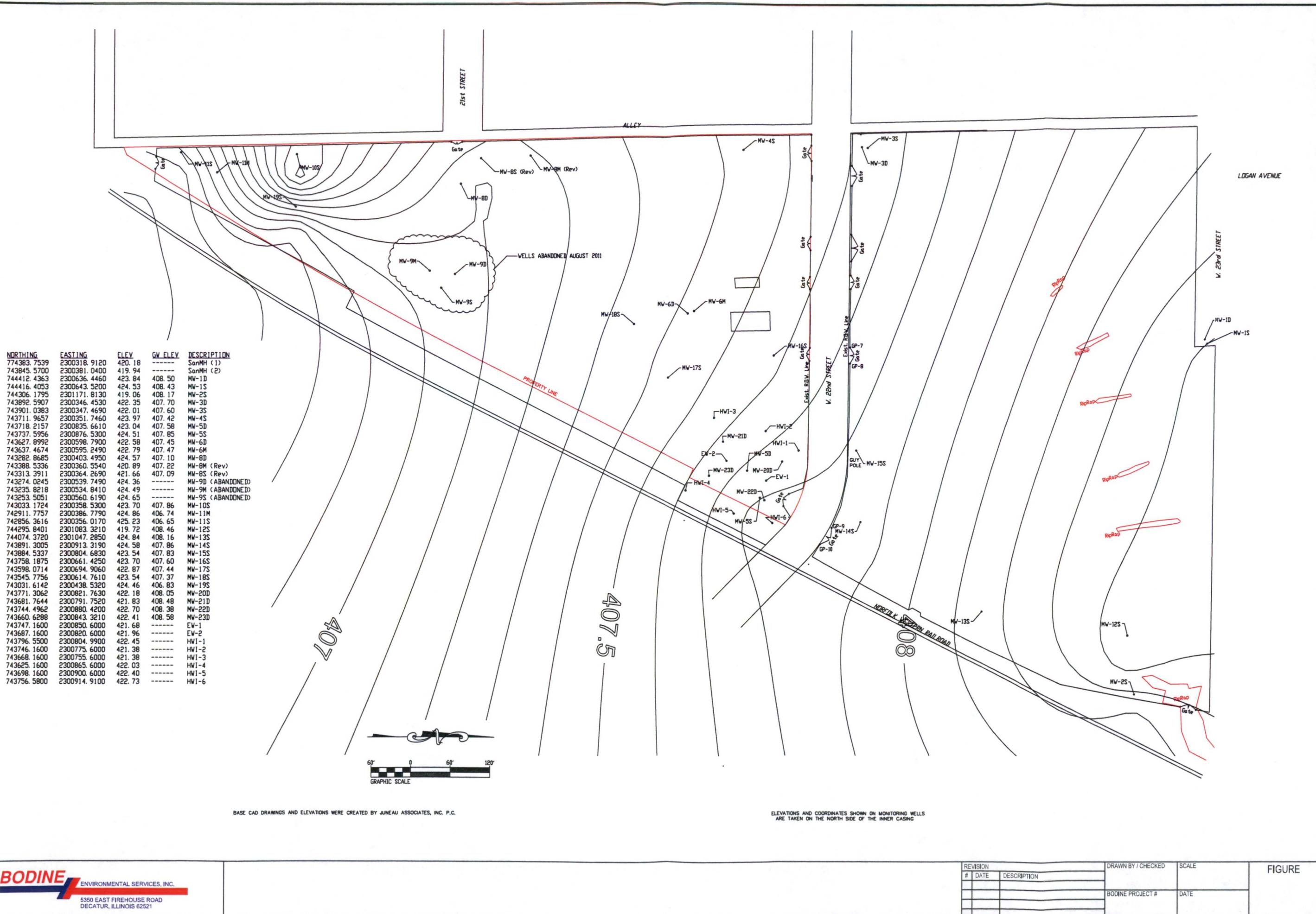
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/11.

**FIGURES**



BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS  
ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

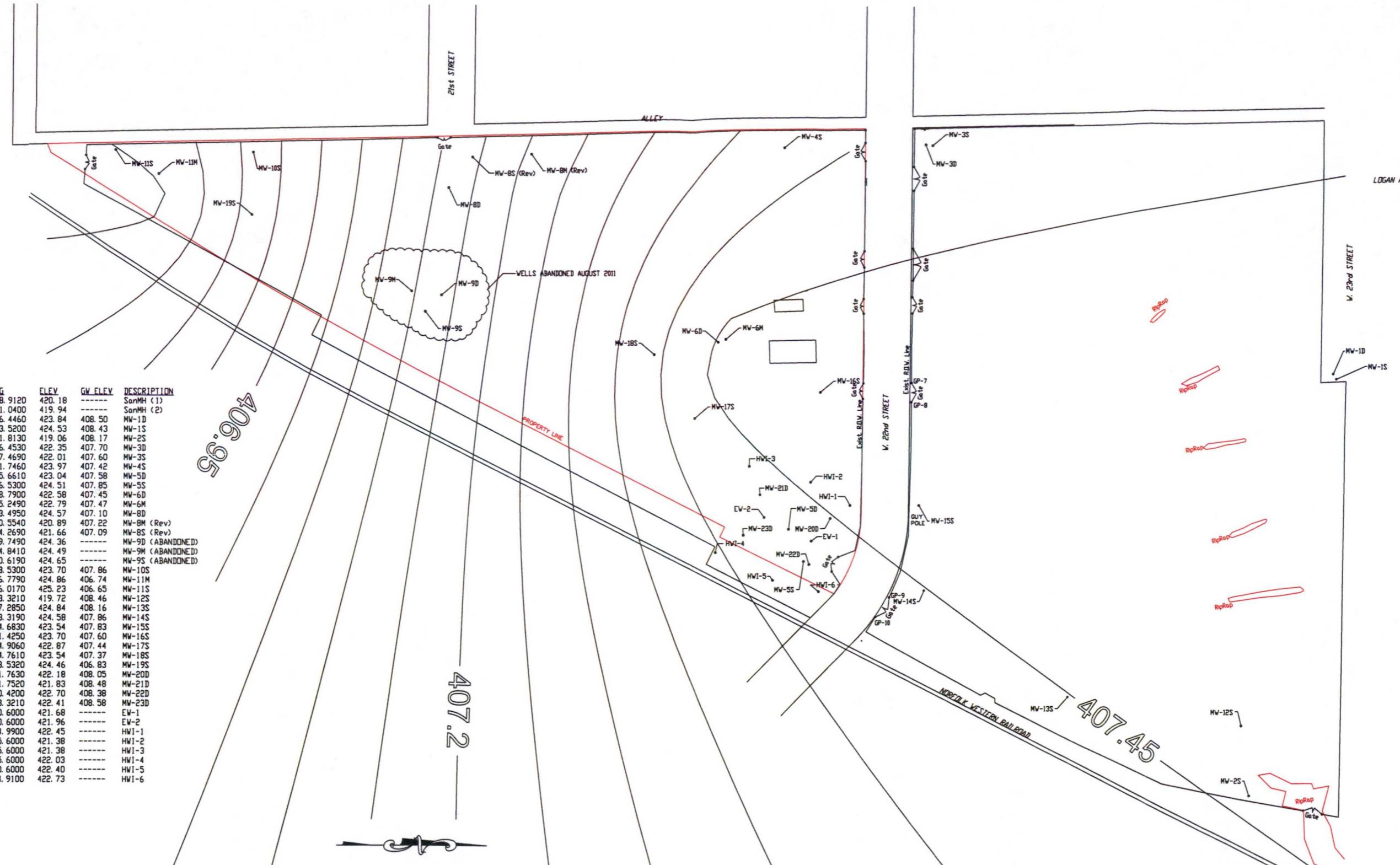


BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELL  
ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

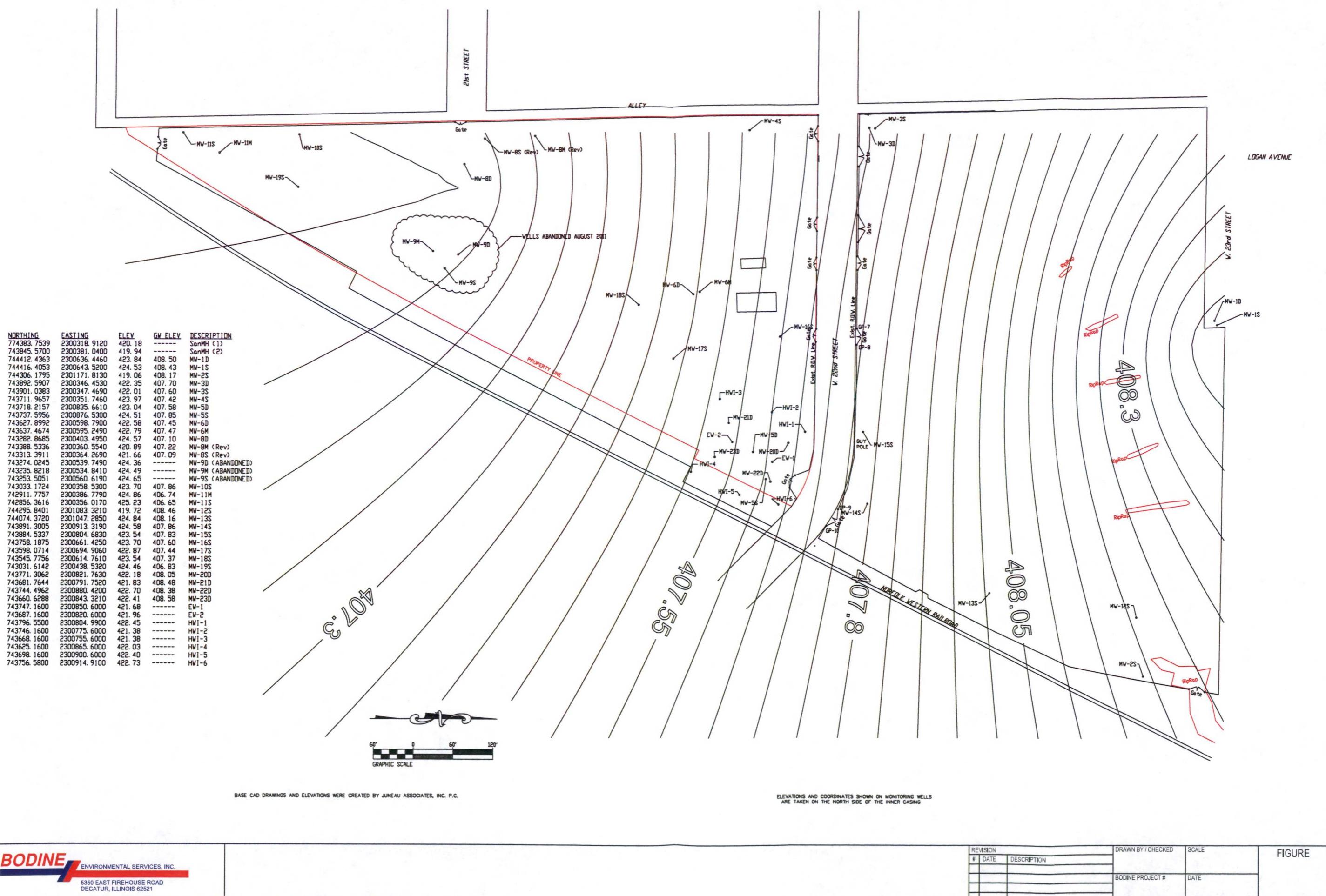
**BODINE** ENVIRONMENTAL SERVICES, INC.  
5350 EAST FIREHOUSE ROAD  
DECATUR, ILLINOIS 62521

REVISION		DRAWN BY / CHECKED	SCALE	FIGURE
#	DATE	DESCRIPTION		
		BODINE PROJECT #	DATE	



BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS  
ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING



## **APPENDIX A**

### **Weekly Operations Logs**

TABLE 2  
OPERATIONS LOG

Site Name: Jennean-Wright Corporation Superfund Site  
Job Number: Bodine 118837  
Site Location: 800 West 22nd Street, Granite City, IL

Date: 10/06/10

A. GWOLI FLOW

A1) Combined Extraction Flowrate	<u>47.0</u>	gpm
A2) Re circulation Flowrate	<u>38/11.5</u>	gpm
A3) Uncalibrated Effluent Flowrate	<u>32/11.8</u>	gpm

34.0 gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EWOL (M-1) Operating Status Hand / off / auto  
Flow 23.5 gpm Temperature 62 °F

B3) HWI-1 Operating Status On / Off  
Flow 5.7 gpm Packer Pressure 10.5 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

B5) HWI-3 Operating Status On / Off  
Flow 5.2 gpm Packer Pressure 16 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

B7) HWI-5 Operating Status On / Off  
Flow 5.7 gpm Packer Pressure 14.5 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

Number of HWI Wells Operating 6  
Re circulation Pump Running  
Effluent Pump Running  
M-3 / M-4  
M-5 / M-6

B2) EWOL (M-2) Operating Status Hand / off / auto  
Flow 23.5 gpm Temperature 78 °F

B4) HWI-2 Operating Status On / Off  
Flow 5.2 gpm Packer Pressure 9.3 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

B6) HWI-4 Operating Status On / Off  
Flow 5.7 gpm Packer Pressure 11 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

B8) HWI-6 Operating Status On / Off  
Flow 5.7 gpm Packer Pressure 14 psi  
Temperature Low X °F  
Med ↓ °F  
High °F

Comments/Notes

Route originals to: Troy McFale, DEIS  
CC: Tom Campbell, EEEI  
Treatment Plant File

On arrival was GWOL operating?

Yes  No

## C. GROUNDWATER TREATMENT SYSTEM

1) Pump 1 Recirc Pump (M-8) Operating Status  
Pump 2 Recirc Pump (M-1) Operating Status  
Pressure

hand / off / auto

hand / off / auto

?

psi

Effluent Pump (M-3) Operating Status

Effluent Pump (M-6) Operating Status

hand / off / auto

hand / off / auto

4.8.5

psi

Heat Exchanger Pump Operating Status

sys  
dis  
pressur

hand / off / auto

4.9.5

psi

Front Feed Tank Pressure

66.2

psi

IN Heat Exchanger

126.3

psi

OUT Heat Exchanger

140.0

psi

To Wellfield

134.9

psi

## 2) Thermometers

Stream PSI: 6.25

Auto mode 1400°F

## 3) Pressure

Before Clay	41	psi	Before Carbon	35	psi
After Clay	38	psi	After Carbon	38	psi
Differential	3	psi	Differential	0	psi

## 4) Effluent Totalizer

Water Reading  
Time Read

12:30 P.M.

2,112,590 gallons

150PM

## E. SAMPLE COLLECTION DATA

Location	Analyte	Method	Sample Collected
Influent	Oil and grease (O&G)	GIVOUA	Yes / No
Influent	Solvent-volatile organics (SVOCs)	GIVOUA	Yes / No
Separator	O&G	GIVOUA	Yes / No
Separator	Total suspended solids (TSS)	GIVOUA	Yes / No
Separator	pH	GIVOUA	Yes / No
Effluent	TSS	GIVOUA	Yes / No
Effluent	Arsenic (As)	GIVOUA	Yes / No
Effluent	Biochemical O2 demand (BOD)	GIVOUA	Yes / No
Effluent	SVOCs	GIVOUA	Yes / No
Effluent	pH	GIVOUA	Yes / No
Effluent	Temperature	GIVOUA	Yes / No

## D. BUILDING SYSTEMS

1) Building Sump Level Switch Clear of Debris Yes / No

Empty sump Yes / No

2) Vapor Phase Blower Operating Correctly? Yes / No

3) Building Exhaust Fan Operating Correctly? Yes / No

Clear of debris Yes / No

4) Building Louver

5) Piping and valves

Leaking Yes / No

6) Building Interior Lights

Operational? Yes / No

7) Building Exterior Lights

Operational? Yes / No

8) Building Temperature

78 °F

9) Outdoor Temperature

70 °F

10) DNAPL Solfeld

Status hand / off / auto

11) Polable Water Solfeld

Status hand / off / auto

General Comments: INFLUENT AND EFFLUENT

A: 46/43 B: 48/47

Boiler Blow Down 100% Approval

Date: 10/06/10

Operator:

Signature: Robert G. L.

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/06/10	104.4	16.62
MW5D		71.4	15.40
MW20		81.9	17.35
MW21		95.4	16.15 20.17
MW22		108.9	16.89
MW23	V	118.4	16.84

Notes:

Feet bgs = Feet below ground surface

- Steam PSI @ 7.5
- Therm Readings @ 30' BGS

MW21 H<sub>2</sub>O - 20.17

CNAPC - 16.15

TABLE 2  
OPERATIONS LOG

Site Name: JENNIFER-WRIGHT Corporation Superfund Site  
Job Number: Bodine 118937  
Site Location: 000 West 22nd Street, Granite City, IL

Date: 10/8/10

A. GWWL FLOW

- A1) Contaminated Extraction Flowrate  
A2) Recirculation Flowrate  
A3) Calculated Effluent Flowrate

50	gpm	
39	11.5	gpm
41	gpm	

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

- B1) HWI-1 (M-1)  
Flow

25.0 gpm

Operating Status  
Temperature

hand / off / auto  
62 °F

- B3) HWI-1  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
10.5 psi

- B5) HWI-2  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
16.6 psi

- B7) HWI-3  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
14.5 psi

- B9) HWI-4  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

- B11) HWI-5  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.5 psi

- B13) HWI-6  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

- B15) HWI-7  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

- B17) HWI-8  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

- B19) HWI-9  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

Route Originals to: Troy McFeate, BESI  
CO: Tom Campbell, BESI  
Treatment Plant file

On arrival was GWOL operating?

Yes / No

6  
M-3 / M-1  
M-0 / M-0

B2) HWI-2 (M-2)  
Flow

25.0 gpm

Operating Status  
Temperature

hand / off / auto  
79 °F

B4) HWI-2  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

B6) HWI-4  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
11 psi

B8) HWI-6  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
11 psi

B10) HWI-8  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.5 psi

B12) HWI-10  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

B14) HWI-12  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

B16) HWI-14  
Flow

6.7 gpm

Operating Status  
Packer Pressure

On / Off  
13.0 psi

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

- 1) Pump Reclaim Pump (M-3) Operating Status  
Reclaim Pump (M-4) Operating Status  
*6 Aug 2009*  
Pressure  
Effluent Pump (M-5) Operating Status  
Effluent Pump (M-6) Operating Status  
Pressure

hand / off /  auto  
? psig

hand / off /  auto  
hand /  off / auto  
47.5 psig

hand / off / auto  
47.5 psig

65.0 psig

63.4 "f

74.1 "f

147.7 "f

131.5 "f

Automated: 140°F

SUC /  
Dis /  
Present

From Feed Tank

System Pressure .5 psi

IN Heat Exchanger

OUT Heat Exchanger

To Wellfield

D) Pressure

Before Olay 42 psig

After Olay 39 psig

Differential 3 psig

Before Carbon 30.5 psig

After Carbon 36.5 psig

Differential 6 psig

E) Effluent Totalizer

Meter Reading  
Time Read

2,131,466 gallons  
11.56PM

at 8:15AM

F. SAMPLE COLLECTION DATA

Example Sample Collection Locations <Inlet, midline, GWQA00300>

Location

Analys

Method

Sample Collected

Influent Oil and grease (OBG)

GWOUE

Yes /  No

Influent Semi-volatile organics (SVOCs)

GWOUE

Yes /  No

Separator O&G

GWOUE

Yes /  No

Separator Total suspended solids (TSS)

GWOUE

Yes /  No

Separator pH

GWOUE

Yes /  No

Effluent TSS

GWOUE

Yes /  No

Effluent Arsenic (As)

GWOUE

Yes /  No

Effluent Biochemical O2 demand (BOD)

GWOUE

Yes /  No

Effluent SVOCs

GWOUE

Yes /  No

Effluent pH

GWOUE

Yes /  No

Effluent Temperature

GWOUE

Yes /  No

D. BUILDING SYSTEMS

- 1) Building Sump Level Switch Clear of Debris Yes / No

Empty pump Yes / No

- 2) Vapor Phase Blower Operating Correctly? Yes / No

- 4) Building Exhaust Fan Operating Correctly? Yes / No

Clear of debris Yes / No

- 7) Piping and Valves Leaking Yes / No

- 8) Building Interior Lights Operational? Yes / No

- 9) Building Exterior Lights Operational? Yes / No

- 10) Building Temperature 74 °F

- 11) Outdoor Temperature 50 °F

- 12) DNAPL Solenoid Status hand /  off / auto

- 13) Portable Water Solenoid Status hand / off /  auto

General Comments Influent Box filters

A: 46/45 B: 47/47

Date: 10/8/10

Operator:

Signature:

*John B*

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/9/10	104.0	16.75
MW5D		69.5	15.54
MW20		78.1	17.47
MW21		94.0	16.67 LNAPL 21.15 H2O
MW22		106.9	17.07
MW23	✓	116.5	16.95

Notes:

Feet bgs = Feet below ground surface

Temps collected @ 30' BGS

MW 21. LNAPL 16.27  
H<sub>2</sub>O 21.15

After start up @ 5:00 P.M 10/9/10

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/11/10	68.4	16.66
MW5D		68.6	15.46
MW20		80.5	17.39
MW21		95.9	16.2 - LMAP 20.8 - H2O
MW23		118.1	16.83
MW2a		108.5	108.5 16.93

Notes:

Feet bgs = Feet below ground surface

TGMS Collected @ 30' BGS.

MW21 : LMAP : 16.2

H<sub>2</sub>O : 20.8

TABLE 2  
OPERATIONS LOG

Site Name: JENNISON-WRIGHT CORPORATION SUPERFUND SITE  
Job Number: Beding 118997  
Site Location: 000 West 22nd Street, Granite City, IL

Route originated to: Troy McFate, DEE  
CC: Toni Campbell, DEE  
Treatment Plant file

Date: 10/11/10

On arrival was GWOL operating?

Yes / No

A. GWOL FLOW

A1) Combined Extraction Flowrate	49 gpm
A2) Recirculation Flowrate	38 / 11.5 gpm
A3) Onboarded Effluent Flowrate	38 gpm

Number of HWI Wells Operating  
Recirculation Pump Running  
Effluent Pump Running

6  
M-3 / M-1  
M-6 / M-8

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) SWD1 (M-1)	Operating Status	hand / off / auto
Flow	Temperature	62 °F
<u>24.5</u> gpm		

B2) SWD2 (M-2)	Operating Status	hand / off / auto
Flow	Temperature	59 °F
<u>24.5</u> gpm		

B3) HWI-1	Operating Status	On / Off
Flow	Packer Pressure	10 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

B4) HWI-2	Operating Status	On / Off
Flow	Packer Pressure	13 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

B5) HWI-3	Operating Status	On / Off
Flow	Packer Pressure	16 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

B6) HWI-4	Operating Status	On / Off
Flow	Packer Pressure	11 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

B7) HWI-5	Operating Status	On / Off
Flow	Packer Pressure	4.8 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

B8) HWI-6	Operating Status	On / Off
Flow	Packer Pressure	14 psi
<u>6.3</u> gpm	Temperature	Low X °F
	Med	°F
	High	°F

Comments/Notes

Flow meters not installed and/or broken.  
Reusing.

## C. GROUNDWATER TREATMENT SYSTEM

- 1) Pump Reclaim Pump (M-3) Operating Status  
Reclaim Pump (M-4) Operating Status

*(Aug Broken)*

- Effluent Pump (M-5) Operating Status  
Effluent Pump (M-6) Operating Status

- Preasure  
Heat Exchanger Pump Operating Status

- SAC Preasure  
DIS Recovery

Front Feed Tank

IN Heat Exchanger

OUT Heat Exchanger

To Wellfield

hand / off / auto  
hand / off / auto

?

hand / off / auto  
hand / off / auto

48 psi

hand / off / auto  
47 psi

67 psi

66.7 °F

144.1 °F

158.1 °F

149.1 °F

## 2) Thermometer

Auto Mod: 140°F

Stream PS: 5 psig

## 3) Pressure

Before Clay 46 psi

After Clay 37 psi

Differential 3 psi

Before Carbon 37 psi

After Carbon 37 psi

Differential 0 psi

## 4) Effluent Monitor

Water Readings  
Time Read

12:41 P.M.

2,173,460 gallons

115 GPM

## D. SAMPLE COLLECTION DATA

Exhibit Sample Collection Document ID: GWAQ00000000

## Location Analyte

## Identification

## Sample Collected

Influent Oil and grease (O&G)

GWOUE

Yes / No

Influent Semi-volatile organics (SVOCs)

GWOUE

Yes / No

Separator O&G

GWOUE

Yes / No

Separator Total suspended solids (TSS)

GWOUE

Yes / No

Separator pH

GWOUE

Yes / No

Influent TSS

GWOUE

Yes / No

Influent Arsenic (As)

GWOUE

Yes / No

Influent Biochemical O<sub>2</sub> demand (BOD)

GWOUE

Yes / No

Influent AVOCs

GWOUE

Yes / No

Influent pH

GWOUE

Yes / No

Influent Temperature

GWOUE

Yes / No

## D. BUILDING SYSTEMS

- 1) Building Sump Level Switch Clear of Debris Yes / No

- Empty pump Yes / No

- 2) Vapor Phase Blower Operating Correctly? Yes / No

- 4) Building Exhaust Fan Operating Correctly? Yes / No

- 5) Building Louver Clear of debris Yes / No

- 7) Piping and valves Tight Yes / No

- 8) Building Interior Lights Operational? Yes / No

- 9) Building Exterior Lights Operational? Yes / No

- 10) Building Temperature 85 °F

- 11) Outdoor Temperature 83 °F

- 12) DNAPL Solenoid Status hand / off / auto

- 13) Flammable Water Solenoid Status hand / off / auto

General Comments: INFLUENT bag fixes

4:45 / 3:42

BLow Down Bldg

Date: 10/17/2010

Operator:

Signature: Lubab Elhy

Site Name: Jenneen-Wright Corporation Superfund Site  
 Job Number: Bodine 118037  
 Site Location: 100 West 22nd Street, Granite City, IL

TABLE 2  
 OPERATIONS LOG

Date: 10/12/10

A. GWOL FLOW

A1) Circulating Extraction Flowrate	49.0	gpm
A2) Recirculation Flowrate	38.0	gpm
A3) Onsite/Offsite Effluent Flowrate	39	gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW101 (M-1)	Operating Status	Hand / off / auto
Flow	Temperature	62 °F
24.5 gpm		
Flow	Operating Status	(On) / Off
6.7 gpm	Packer Pressure	9.5 psi
	Temperature	X °F
	Low	↓ °F
	Med	↓ °F
	High	↓ °F
EW1-2	Operating Status	(On) / Off
Flow	Packer Pressure	16 psi
6.7 gpm	Temperature	X °F
	Low	↓ °F
	Med	↓ °F
	High	↓ °F
EW1-3	Operating Status	(On) / Off
Flow	Packer Pressure	14.5 psi
6.7 gpm	Temperature	X °F
	Low	↓ °F
	Med	↓ °F
	High	↓ °F

Comments/Notes

Route originals to: Troy McRae, DESI  
 CC: Tom Campbell, DEE  
 Treatment Plant file

On arrival was GWOL operating?

Yes / No

Number of HW Wells Operating  
 Recirculation Pump Running  
 Effluent Pump Running

6  
 M-8 / M-1  
 M-0 / M-0

M2) HW102 (M-8)

Operating Status	Hand / off / auto
Flow	80 °F
24.5 gpm	
Operating Status	(On) / Off
Packer Pressure	13 psi
Temperature	X °F
Low	↓ °F
Med	↓ °F
High	↓ °F

M3) HW1-3

Operating Status	Hand / off / auto
Flow	10 °F
6.7 gpm	
Operating Status	(On) / Off
Packer Pressure	13 psi
Temperature	X °F
Low	↓ °F
Med	↓ °F
High	↓ °F

M4) HW1-4

Operating Status	Hand / off / auto
Flow	10 °F
6.7 gpm	
Operating Status	(On) / Off
Packer Pressure	10 psi
Temperature	X °F
Low	↓ °F
Med	↓ °F
High	↓ °F

M5) HW1-5

Operating Status	Hand / off / auto
Flow	13.5 °F
6.7 gpm	
Operating Status	(On) / Off
Packer Pressure	13.5 psi
Temperature	X °F
Low	↓ °F
Med	↓ °F
High	↓ °F

  
S. J. Karpel  
Signature  
Caption

Chances of the loss  
B. 45/33  
A. 42/36

hand / off / hitto	45
hand / off / hitto	49
hand / off / hitto	61
hand / off / hitto	66.5
hand / off / hitto	130.4
hand / off / hitto	149.4
hand / off / hitto	142.1
hand / off / hitto	31
Ballon Cephali	Alder Deltan
Differential	Diffusion
φ	0
2184276	111569m

1) TRADING	TRADING	TRADING
2) PRODUCTION	PRODUCTION	PRODUCTION
3) SERVICES	SERVICES	SERVICES
4) INVESTMENT	INVESTMENT	INVESTMENT
5) FINANCIAL	FINANCIAL	FINANCIAL

1. <b>PERIODICITY</b>	Periodic, Biannual, Triannual, Triyearly
2. <b>FORMAT</b>	Textual, Diagrammatic, Graphical
3. <b>CONTENT</b>	General, Specific
4. <b>SCOPE</b>	General, Specific
5. <b>TIME SPANNED</b>	Recent, Past

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/14/10	108.0	16.70
MW5D		72.4 <del>108.0</del>	<del>16.70</del> 15.42
MW20		82.5 <del>108.0</del>	<del>17.48</del> <del>16.70</del>
MW21		92.5	<del>16.29</del> 16.29
MW22		113.0	16.99
MW23	✓	119.2	16.92

Notes:

Feet bgs = Feet below ground surface

All temps @ 30' BGS

MW 21: LNAPL 16.29  
H2O 20.72

SD: BEGINNING TO SHOW SIGNS OF LNAPL

TABLE 2  
OPERATIONS LOG

Site Name: Johnson-Wright Corporation Superfund Site  
Job Number: Beding 118007  
Site Location: 000 West 22nd Street, Granite City, IL

Date: 10/14/2010

Route originals to: Troy McGaule, DUST  
CC: Tom Campbell, EET  
Treatment Plant file

A. GWOL Flow

A1) Combined Extraction Flowrate	<u>49</u>	gpm
A2) Recirculation Flowrate	<u>38</u>	gpm
A3) On/Off/On Effluent Flowrate	<u>40</u>	gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) GWOL (M-1)	Operating Status	Hand / off / <u>auto</u>
Flow	6.7 gpm	<u>6.7</u> "f

B3) HWVI-1	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>9</u> psi
Packer Pressure		<u>9</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

B6) HWVI-3	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>16</u> psi
Packer Pressure		<u>16</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

B7) HWVI-0	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>14.5</u> psi
Packer Pressure		<u>14.5</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

On arrival was GWOL operating?

Yes / No

Number of HWI Wells Operating  
Recirculation Pump Running  
Effluent Pump Running

6  
 M-3 / M-1  
M-0 /  M-0

B2) HWOL (M-0)	Operating Status	hand / off / <u>auto</u>
Flow	24.5 gpm	<u>81</u> °F

B4) HWVI-2	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>13</u> psi
Packer Pressure		<u>13</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

B5) HWVI-4	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>10.15</u> psi
Packer Pressure		<u>10.15</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

B8) HWVI-0	Operating Status	<u>On</u> / Off
Flow	6.7 gpm	<u>13.25</u> psi
Packer Pressure		<u>13.25</u> psi
Temperature	Low	X °F
	Med	↓ °F
	High	↓ °F

Comments/Notes

- Flow meters removed. Estimated amount of flow to each well
- Removed mechanical flow meters in extraction wells as they may be restricting flow.  - Filled to 15psi.

## C. GROUNDWATER TREATMENT SYSTEM

1) Pump Recirc Pump (M-3) Operating Status  
Recirc Pump (M-1) Operating Status

*Gauge Broken* Pressure

Effluent Pump (M-6) Operating Status  
Effluent Pump (M-6) Operating Status

Pressure

Heat Exchanger Pump Operating Status

Suc Pressure

Dis Pressure

Front Feed tank

IN Heat Exchanger

OUT Heat Exchanger

To Wellfield

hand / off / auto

hand / off / auto

?

hand / off / auto

hand / off / auto

46 psi

hand / off / auto

49 psi

70 psi

66.2 psi

127.2 psi

141.2 psi

137.2 psi

2) Thermometer

Auto Mod: 140°

Steam: 1 PSI

3) Pressure

Before Clay

After Clay

Differential

Before Carbon

After Carbon

Differential

4) Effluent Totalizer

Water Reading

Time Read

11.5 6PM

9:25AM

gallons

2,311,770

## E. SAMPLE COLLECTION DATA

Location	Analyte	Description	Sample Collected
Effluent	Oil and grease (O&G)	GWOUA	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	O&G	GWOUE	Yes / No
Separator	Total suspended solids (TSS)	GWOUE	Yes / No
Separator	pH	GWOUE	Yes / No
Effluent	TSS	GWOUE	Yes / No
Effluent	Argento(As)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	SVOCs	GWOUE	Yes / No
Effluent	pH	GWOUE	Yes / No
Effluent	Temperature	GWOUE	Yes / No

## D. BUILDING SYSTEMS

1) Building Sump Level Switch Clear of Debris Yes / No  
Rising Dump Yes / No

2) Vapor Phase Blower Operating Correctly? Yes / No

4) Building Exhaust Fan Operating Correctly? Yes / No

6) Building Louver Clear of debris Yes / No

7) Piping and valves Trippant Yes / No

8) Building Interior Lights Operational? Yes / No

9) Building Exterior Lights Operational? Yes / No

10) Building Temperature 76 °F

11) Outdoor Temperature 53 °F

12) DNAPL Solenoid Status hand / off / auto

13) Potable Water Solenoid Status hand / off / auto

General comments: Influent 948 FILTERS

A. 45/40

B. 45/43

Sampled system on 10/13/2010

Date: 10/14/2010

Operator:

Signature: *Robert Egan*

TABLE 2  
OPERATIONS LOG

Site Name: Jenison-Wright Corporation Superfund Site  
Job Number: Beding 118937  
Site Location: 000 West 22nd Street, Granite City, IL

Date: 10/01/10

Route originates to: Troy (McFate, BESI)  
CO: Tom Campbell, BESI  
Treatment Plant File

A. GROUNDWATER FLOW

A1) Combined Extraction Flowrate	<u>49.5</u>	gpm
A2) Recirculation Flowrate	<u>39.0</u>	gpm
A3) Onsite/Offsite Effluent Flowrate	<u>10.5</u>	gpm

Did arrival was GWOL operating?

Yes / No

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EWOL (M-1)	Operating Status		Flow	Temperature	Hand / off / auto
	On	Off			
Flow			<u>63</u>	°F	
24.5 gpm					
B3) HWL-1	Operating Status	<u>On</u> / Off			
Flow	Packer Pressure	<u>14</u> psig			
<u>6.7</u> gpm	Temperature	Low <u>X</u> °F			
	Med	<u>X</u> °F			
	High	<u>X</u> °F			
B5) HWL-3	Operating Status	<u>On</u> / Off			
Flow	Packer Pressure	<u>1.6</u> psig			
<u>6.7</u> gpm	Temperature	Low <u>X</u> °F			
	Med	<u>X</u> °F			
	High	<u>X</u> °F			
B7) HWL-4	Operating Status	<u>On</u> / Off			
Flow	Packer Pressure	<u>15</u> psig			
<u>6.7</u> gpm	Temperature	Low <u>X</u> °F			
	Med	<u>X</u> °F			
	High	<u>X</u> °F			
B9) HWL-6	Operating Status	<u>On</u> / Off			
Flow	Packer Pressure	<u>14</u> psig			
<u>6.7</u> gpm	Temperature	Low <u>X</u> °F			
	Med	<u>X</u> °F			
	High	<u>X</u> °F			

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pump	Record Pump (M-9)	Operating Status	hand / off / <input checked="" type="checkbox"/>
	Record Pump (M-4)	Operating Status	hand / off / <input checked="" type="checkbox"/>
		Procedure	<u>44</u>
	Bilgeant Pump (M-5)	Operating Status	hand / off / <input checked="" type="checkbox"/>
	Gulliont Pump (M-6)	Operating Status	hand / off / <input checked="" type="checkbox"/>
		Procedure	<u>47</u> pul
	Hull Exchange Pump	Operating Status	hand / off / <input checked="" type="checkbox"/>
		Procedure	<u>46</u> <input checked="" type="checkbox"/> pul <u>60</u>
2) Thermometers		Front Feed Tank	<u>67.6</u> °F
		/ IN Heat Exchanger	<u>137.9</u> °F
		OUT Heat Exchanger	<u>160.3</u> °F
		To Wellfield	<u>153.3</u> °F
3) Pressure		Before Olay	<u>42</u> psi
		After Olay	<u>39</u> psi
		Differential	<u>3</u> psi
		Before Carbon	<u>38</u> psi
		After Carbon	<u>38</u> psi
		Differential	<u>0</u> psi
4) Effluent Monitor	Meter Readings		<u>2293460</u> gallons
	Time Read		<u>11:20</u>

E. SAMPLE COLLECTION DATA

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (OG)	GVOUE	Yes / <input checked="" type="checkbox"/>
Influent	Semi-volatile organics (SVOG)	GVOUE	Yes / No
Separator	OG	GVOUE	Yes / No
Separator	Total suspended solids (TSS)	GVOUE	Yes / No
Separator	pH	GVOUE	Yes / No
Effluent	TSS	GVOUE	Yes / No
Effluent	Arsenic (As)	GVOUE	Yes / No
Effluent	Biochemical O <sub>2</sub> demand (BOD)	GVOUE	Yes / No
Effluent	SVOCs	GVOUE	Yes / No
Effluent	pH	GVOUE	Yes / No
Effluent	Temperature	GVOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	<input checked="" type="checkbox"/> / No
	Empty pump	<input checked="" type="checkbox"/> / No
2) Vapor Phase Blower	Operating Correctly?	<input checked="" type="checkbox"/> / No
3) Building Exhaust Fan	Operating Correctly?	<input checked="" type="checkbox"/> / No
4) Building Louver	Clear of debris	<input checked="" type="checkbox"/> / No
5) Piping and Valves	Leaking	<input checked="" type="checkbox"/> / No
6) Building Interior Lights	Operational?	<input checked="" type="checkbox"/> / No
7) Building Exterior Lights	Operational?	<input checked="" type="checkbox"/> / No
8) Building Temperature		<u>71</u> °F
9) Outdoor Temperature		<u>60</u> °F
10) DNAPL Solenoid	Status	hand / <input checked="" type="checkbox"/> auto
11) Potable Water Solenoid	Status	hand / off / <input checked="" type="checkbox"/>

General Comments: CHANGED BAG FILTERS

CREATED SYSTEM

Date: 10/10/10

Operator:

Signature: Bush

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/20/10	109.4	16.69
MW5D		71.4	15.41
MW20		85.5	17.48
MW21		96.7	16.15 20.71
MW22		115.6	17.22
MW23		117.2	16.84

Notes:  
Feet bgs = Feet below ground surface

All temps @ 30' BGS

MW 21 : LNAPL 16.15  
H2O 20.71

Site Name: Jefferson-Wright Corporation Superfund Site  
 Job Number: Bodine 118097  
 Site Location: 900 West 22nd Street, Granite City, IL

TABLE 2  
 OPERATIONS LOG

Date: 10/28/10

A. GWOL FLOW

A1) Combined Extraction Flowrate

50

gpm

A2) Recirculation Flowrate

38.5 / 15

gpm

A3) Calculated Effluent Flowrate

40

gpm

B. OROWINNATIER EXTRACTION/DISCHARGE SYSTEM

B1) HWI-1 (W-1) Operating Status

Hand / off ON

Flow  
25 gpm

62

"F

B2) HWI-1

Operating Status

ON / Off

Flow

9.75 psi

6.7 gpm

X

"F

Low  
Med  
High

B3) HWI-3

Operating Status

ON / Off

Flow

13.5 psi

6.7 gpm

X

"F

Low  
Med  
High

B7) HWI-1

Operating Status

ON / Off

Flow

14.5 psi

6.7 gpm

X

"F

Low  
Med  
High

On arrival was GWOL operating?

Yes / No

Route originates to: Troy McFate, DSEG

CO: Tom Campbell, DSEG

Treatment Plant File

6

M-3 / M-1

M-3 / M-3

Number of HWI Wells Operating

Recirculation Pump Running

Effluent Pump Running

B2) HWI-2 (W-2)

Operating Status

Hand / off / ON

Flow  
25 gpm

Temperature

74 "F

B3) HWI-2

Operating Status

ON / Off

Flow  
6.7 gpm

Packer Pressure

16 psi

6.7 gpm

Temperature

X "F

Low  
Med  
High

B4) HWI-4

Operating Status

ON / Off

Flow  
6.7 gpm

Operating Status

5.5 psi

Packer Pressure

5.5 psi

6.7 gpm

Temperature

X "F

Low  
Med  
High

B5) HWI-3

Operating Status

ON / Off

Flow  
6.7 gpm

Packer Pressure

12.5 psi

6.7 gpm

Temperature

X "F

Low  
Med  
High

Comments/Notes

F16d #1 9.75 - 16

# 4 55 ~~65~~ will not fill past 5.5

WUL bubbles when  
air is applied

## C. GROUNDWATER TREATMENT SYSTEM

1) Pump 1 Redrd Pump (M-8) Operating Status

Pump 2 Rocker Pump (M-4) Operating Status

hand / off / auto

hand / off / auto

?

hand / off / auto

hand / off / auto

47.5 psi

hand / off / auto

49 psi

76 psi

66.7 psi

132.2 psi

146.8 psi

139.4 psi

Gauge BROKEN

Bifurcated Pump (M-6) Operating Status

Bifurcated Pump (M-8) Operating Status

Procedure

Heat Exchanger Pump Operating Status

Procedure

Sig Pressure

0.05 Pressure

0.05 Pressure

2) Thermometer

Airt Mod 140°F

From Feed Tank

IN Heat Exchanger

OUT Heat Exchanger

STEAM Pressur 0.5 PSIG

To Wellfield

3) Pressure

Before Clay 42 psi

After Clay 39 psi

Differential 3 psi

Before Carbon 38 psi

After Carbon 38 psi

Differential 0 psi

4) Frontline Filter

Water Reading

Water Read

3,386,290 gallons

11.5 GPM

## D. SAMPLE COLLECTION DATA

Example Sample Collection Information

Sample Collected

Location Analyte

Influent Oil and grease (OGO)

GWQQA

Yes / No

Influent Semi-volatile organics (SVOCs)

GWQQA

Yes / No

Separator OAO

GWQQA

Yes / No

Separator Total suspended solids (TSS)

GWQQA

Yes / No

Separator pH

GWQQA

Yes / No

Effluent TSS

GWQQA

Yes / No

Effluent Arsenic (As)

GWQQA

Yes / No

Effluent Biochemical O<sub>2</sub> demand (BOD)

GWQQA

Yes / No

Effluent SVOCs

GWQQA

Yes / No

Effluent pH

GWQQA

Yes / No

Effluent Temperature

GWQQA

Yes / No

## E. BUILDING SYSTEMS

1) Building Pump Level Switch

Clean of Dishes

Yes / No

Supply Pump

Yes / No

2) Vapor Phase Blower

Operating Correctly?

Yes / No

3) Building Exhaust Fan

Operating Correctly?

Yes / No

4) Building Louver

Clean of Dishes

Yes / No

5) Piping and Valves

Leaking?

Yes / No

6) Building Interior Lights

Operating?

Yes / No

7) Building Exterior Lights

Operating?

Yes / No

8) Building Temperature

72 °F

9) Outdoor Temperature

45 °F

10) DNAPL Solenoid

Status

hand / off / auto

11) Potable Water Solenoid

Status

hand / off / auto

General Comments

INFILTRATE SOG FILTER

Date: 10/28/10

Operator:

Signature: Robert B.

changed BAGS TODAY / Blow Bottle Broken

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	10/28/10	110.5	16.82
MW5D		71.7	15.63
MW20		82.6	17.58
MW21		95.9	20.98 76.38
MW22		115.0	17.09
MW23		119.7	17.05

Notes:

Feet bgs = Feet below ground surface

TEMPS Collected @ 30' BGS

(MW 21) LNAPL 16.39

H2O 20.98

Site Name: Jennecon-Wright Corporation Superfund Site  
 Job Number: Bodine 118007  
 Site Location: 800 West 22nd Street, Granite City, IL

Date: 11-4-10

A. GWOU FLOW

A1) Gainsville Extraction Flowrate	48	gpm
A2) Finalization Flowrate	38	gpm
A3) Onsite Effluent Flowrate	35	gpm

B. CIRCUITWATER EXTRACTION/DISCHARGE SYSTEM

B1) SWO1 (M-1)	Operating Status	Hand / off / <input checked="" type="radio"/> auto
Flow	Temperature	
25 gpm		
B3) HWI-1	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F
B5) HWI-3	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F
B7) HWI-5	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F

TABLE 2  
 OPERATIONS LOG

Route Originator to: Troy McFate, DIESI  
 CO: Tom Campbell, EEE  
 Treatment Plant File

On arrival was GWOU operating?

Yes / No

Number of HWI Wells Operating  
 Re circulation Pump Running  
 Effluent Pump Running

6  
 M-3 /   
 M-4 / M-6

B2) SWO3 (M-2)	Operating Status	Hand / off / <input checked="" type="radio"/> auto
Flow	Temperature	
25 gpm		

B4) HWI-2	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F

B6) HWI-4	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F

B8) HWI-6	Operating Status	<input checked="" type="radio"/> / off
Flow	Packer Pressure	psl
6.2 gpm	Temperature	Low °F
	Med	°F
	High	°F

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEMS

1) Pump 1 Recirc Pump (M-9) Operating Status  
Pump 2 Recirc Pump (M-1) Operating Status  
Procedure

hand /  / auto  
hand / off /

Effluent Pump (M-6) Operating Status  
Effluent Pump (M-8) Operating Status  
Procedure

hand / off /   
hand /  / auto

Hollow Bed Filter Pump Operating Status  
Procedure

hand / off /   
hand /  / auto

D) Thermometers

Front Feed tank  
IN Heat Exchanger  
OUT Heat Exchanger  
To Wellfield

67.2 °F  
126.3 °F  
140.3 °F  
134.7 °F

E) Pressure

Before Day psi  
After Day psi  
Differential psi

Before Carbon psi  
After Carbon psi  
Differential psi

F) Effluent Totalizer

Motor Readings  
Time Read

2429731 gallons  
11:00

G. SAMPLE COLLECTION DATA

Location	Analysis	Method	Sample Collected
Influent	Oil and grease (OG)	GWWQA	Yes / <input checked="" type="radio"/> No
Influent	Semi-volatile organic (SVOC)	GWWQA	Yes / <input checked="" type="radio"/> No
Separator	OG	GWWQA	Yes / <input checked="" type="radio"/> No
Separator	Total suspended solids (TSS)	GWWQA	Yes / <input checked="" type="radio"/> No
Separator	pH	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	TSS	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	As	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	Biochemical O <sub>2</sub> demand (BOD)	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	SVOCs	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	pH	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	Temperature	GWWQA	Yes / <input checked="" type="radio"/> No
Effluent	metals	GWWQA	Yes / <input checked="" type="radio"/> No

H. PUMPING SYSTEMS

1) Building Sump Level Switch Clear of debris  / No  
Supply pump  / No

2) Vapor Phase Blower Operating Normally?  Yes / No

3) Building Basement Fan Operating Normally?  Yes / No  
Clear of debris  / No

4) Piping and valves Trippoint  / No

5) Building Interior Lights Operating?  Yes / No  
Building Exterior Lights Operating?  Yes / No

6) Building Temperature 72 °F  
7) Outdoor Temperature 50 °F

8) DNAPL Bolometer Status hand /  / auto  
9) Portable Water Bolometer Status hand / off /

I. General Comments

Date: 11-3-10

Operator: Sleder

Signature: [Signature]

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-10

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	11-5-10	100.7°F	17'
MW5D	11-5-10	71.8°F	15.95"
MW20	11-5-10	92.9°F	17.25"
MW21	11-5-10	96°F	17.5" 21.5"
MW22	11-5-10	18.6°F	17.8"
MW23	11-5-10	113.1°F	17.35"

Notes:

Feet bgs = Feet below ground surface

Site Name: Jennecon-Wright Corporation Superfund Site  
 Job Number: Bodige 18087  
 Site Location: 100 West 22nd Street, Granite City, IL

Date: 1/5/10

A. GWQI FLOW

A1) Groundwater Extraction Flowrate	<u>48</u>	gpm
A2) Recirculation Flowrate	<u>38</u>	gpm
A3) On-site Effluent Flowrate	<u>75</u>	gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) RWQI (M-1)	Operating Status	Hand / off / <u>auto</u>
Flow	Temperature	°F

22 gpm

B3) HWL-1	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

B5) HWL-2	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

B7) HWL-3	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

Comments/Notes

TABLE 2  
 OPERATIONS LOG

Route originates to: Troy McRae, BESI  
 CC: Tom Campbell, BESI  
 Treatment Plant File

On arrival was GWQI operating?

Yes / No

Number of HWL Wells Operating  
 Recirculation Pump Running  
 Effluent Pump Running

6  
 M-3 / M-4  
 M-6 / M-7

B2) HWL-1 (M-1)	Operating Status	Hand / off / <u>auto</u>
Flow	Temperature	°F

B4) HWL-2	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

B6) HWL-4	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

B8) HWL-5	Operating Status	On / Off
Flow	Packer Pressure	<u>15</u> psi
<u>6.2</u> gpm	Temperature	Low <u>65</u> °F
	Med	<u>70</u> °F
	High	<u>75</u> °F

C. GROUNDWATER TREATMENT SYSTEMS

1) Pump	Recirc Pump (M-8)	Operating Status	hand / off / <u>auto</u>
	Recirc Pump (M-1)	Operating Status	hand / <u>off</u> / auto
		Procedure	<u>?</u>
	Biffle Pump (M-5)	Operating Status	hand / <u>off</u> / auto
	Biffle Pump (M-6)	Operating Status	hand / off / <u>auto</u>
		Procedure	<u>?</u>
	Blank Discharging Pump	Operating Status	hand / off / <u>auto</u>
		Procedure	<u>?</u>

D. THERMOMETERS

From Feed Tank	<u>66.7</u>
IN Heat Exchanger	<u>138.5</u>
OUT Heat Exchanger	<u>140.3</u>
To Wellfield	<u>149.1</u>

E. PRECIP

Before Clay	<u>44</u>
After Clay	<u>44</u>
Difference	<u>0</u>

F. EFFLUENT OPTIMIZER

Motor Readings	<u>45</u>
Time Read	

G. SAMPLE COLLECTION DATA

Location	Analyte	Measurement	Sample Collected
Influent	Oil and grease (OG)	GWOUA	Yes / No
Influent	Solvent-soluble organics (SVOCs)	GWOUA	Yes / No
Separator	Oil	GWOUA	Yes / No
Separator	Total suspended solids (TSS)	GWOUA	Yes / No
Separator	pH	GWOUA	Yes / No
Effluent	TDS	GWOUA	Yes / No
Influent	Arsenic (As)	GWOUA	Yes / No
Influent	biochemical O2 demand (BOD)	GWOUA	Yes / No
Effluent	BVOCs	GWOUA	Yes / No
Effluent	pH	GWOUA	Yes / No
Effluent	Temperature	GWOUA	Yes / No

H. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
2) Emergency pump	Clear of Debris	Yes / No
3) Vapor Phase Blower	Operating Correctly?	Yes / No
4) Building Ventilation	Operating Correctly?	Yes / No
5) Building Louver	Clear of Debris	Yes / No
6) Piping and Valves	Leaking	Yes / No
7) Building Interior Lights	Operational?	Yes / No
8) Building Exterior Lights	Operational?	Yes / No
9) Building Temperature		<u>62</u> °F
10) Outdoor Temperature		<u>40</u> °F
11) DWAR Boilerhold	Status	hand / <u>off</u> / auto
12) Potable Water Boilerhold	Status	hand / off / <u>auto</u>

General Comments

Date: 11-5-70

Operator: Shetler

Signature: [Signature]

TABLE 2  
OPERATIONS LOG

Site Name: Jantzen-Wright Corporation Superfund Site  
Job Number: Bodine 118007  
Site Location: 900 West 22nd Street, Granite City, IL

Date: 11-11-10 VENTURES Only

A. GWOL Flow

A1) Combined Extraction Flowrate	<u>50.1</u>	gpm
A2) ReInjection Flowrate	<u>39.0</u>	gpm
A3) OnSite Effluent Flowrate	<u>39.0</u>	gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) HWI-1	Operating Status	Hand / off / auto
Flow	Packer Pressure	<u>63</u> psi
<u>25</u> gpm	Temperature	
B3) HWI-2	Operating Status	(On) / off
Flow	Packer Pressure	<u>90</u> psi
<u>6.5</u> gpm	Temperature	Low X °F
		Med ↓ °F
		High ↓ °F
B5) HWI-3	Operating Status	(On) / off
Flow	Packer Pressure	<u>16.0</u> psi
<u>6.5</u> gpm	Temperature	Low X °F
		Med ↓ °F
		High ↓ °F
B7) HWI-5	Operating Status	(On) / off
Flow	Packer Pressure	<u>13.5</u> psi
<u>6.2</u> gpm	Temperature	Low X °F
		Med ↓ °F
		High ↓ °F

Comments/Notes

Chemical Pumps / OK

- REINJECTION Packer #4 JD 6 BSC

Where Packer Is Not functioning -

Route originates to: Troy McFate, BIEB  
CO: Tom Oam (not BIEB)  
Treatment Plant file

On arrival was GWOL operating?

Yes / No  
Turned on @ 8:00 AM

Number of HWI Wells Operating  
Reinjection Pump Running  
Effluent Pump Running

6  
M-3 / M-4  
M-0 / M-0

IHWI-1 (HWI-1)

Operating Status	Temperature
On	<u>72</u> °F

IHWI-2

Operating Status	Temperature
On	<u>93.0</u> °F
Low X	°F
Med ↓	°F
High ↓	°F

IHWI-4

Operating Status	Temperature
On	<u>30</u> °F
Low X	°F
Med ↓	°F
High ↓	°F

IHWI-5

Operating Status	Temperature
On	<u>10.0</u> °F
Low X	°F
Med ↓	°F
High ↓	°F

## C. GROUNDWATER TREATMENT SYSTEM

- 1) Pumping Recirc Pump (M-3) Operating Status  
Recirc Pump (M-4) Operating Status

*Gasline Broken*

- Bilge Pump (M-6) Operating Status  
Bilge Pump (M-9) Operating Status

- Procedure  
Heat Exchanger Pump) Operating Status

*Sus Dis Pressure*

From Feed Tanks

IN Heat Exchanger

OUT Heat Exchanger

To Wellhead

hand / off / auto  
hand / off / auto  
N/A

hand / off / auto  
hand / off / auto

4 psi

hand / off / auto

43.5 psi

68.5 psi

136.4 psi

150.6 psi

145.4 psi

## D) Dispersion

Auto Mod @ 140°F

Steam PSI:

## E) Pressure

Before Clay 41 psi

After Clay 40 psi

Differential 1 psi

Before Carbon 40 psi

After Carbon 40 psi

Differential 0 psi

## F) Effluent Monitor

146 AM

Water Reading

Total TDS

2,541,000 gillons

11 GPM

## H. SAMPLE CONDITION DATA

Location	Sample	Condition	Sample Collected
Influent	All solid particles (SS)	GWQ/UA	Yes / No
Influent	Semi-volatile organic (SVOC)	GWQ/UA	Yes / No
Separator	Oil	GWQ/UA	Yes / No
Separator	Total suspended solids (TSS)	GWQ/UA	Yes / No
Separator	TSP	GWQ/UA	Yes / No
Separator	TSS	GWQ/UA	Yes / No
Influent	Arsenic (As)	GWQ/UA	Yes / No
Influent	Biodegradable O2 demand (BOD)	GWQ/UA	Yes / No
Influent	SVOCs	GWQ/UA	Yes / No
Influent	pH	GWQ/UA	Yes / No
Influent	Temperature	GWQ/UA	Yes / No

## D. BUILDING SYSTEMS

- 1) Building Pump Level Switch Clear of Obstacles  
Supply Pump

- 2) Vapor Phase Blower Operating Correctly? Yes / No

- 3) Building Ventilation Fan Operating Correctly? Yes / No

- 4) Building Louver Clear of Obstacles Yes / No

- 5) Piping and Valves Inspection Yes / No

- 6) Building Interior Lights Operational? Yes / No

- 7) Building Exterior Lights Operational? Yes / No

## H) Temperature

- 8) Outdoor Temperature 78 °F 72 °F

## I) Drip Pot, Bulb Hold

- 9) Portable Water Dispenser Static hand / off / auto

- 10) Portable Water Dispenser Static hand / off / auto

*NO GAUGES ON*

*PAC FILTER Housing units.*

Date 11-11-10

Operator

Signature: *John B*

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-11

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	16/12/10	113.1	17.15
MW5D		73.6	15.97
MW20D		85.5	17.92
MW21D		94.0	16.70 21.69
MW22D		121.7	17.40
MW23D	V	120.4	17.39

Notes:

Feet bgs = Feet below ground surface. *Temp Collected @ 30' BGS*

Temperatures collected @ 30' BGS for MW 5D,5S,20D-23D

LNAPL present from 16.7 to 21.69 MW 21D

Boiler Temperature @ 140 (F) Steam Pressure @ .5

*LNAPL present in MW 5D*

TABLE 2  
OPERATIONS LOG

Site Name: Jefferson-Wright Corporation Superfund Site  
Job Number: Bodine 118307  
Site Location: 100 West 22nd Street, Granite City, IL

Date: 11-12-10

A. GWOLI FLOW

A1) Continuous Extraction Flowrate 51 gpm  
A2) Recirculation Flowrate 39400/11 gpm  
A3) Unfiltered Effluent Flowrate 41 gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EWOL (M-1)	Operating Status	hand / off / auto	B2) HVOL (M-2)	Operating Status	hand / off / auto
Flow	Temperature	<u>63</u> °F	Flow	Temperature	<u>72</u> °F
B3) HVOL-1	Operating Status	On / Off	B4) HVOL-2	Operating Status	On / Off
Flow	Packer Pressure	<u>9.0</u> psi	Flow	Packer Pressure	<u>13.0</u> psi
<u>6.7</u> gpm	Temperature	Low X °F	<u>6.7</u> gpm	Temperature	Low X °F
		Med ✓			Med ✓
		High ✓			High ✓
B5) HVOL-3	Operating Status	On / Off	B6) HVOL-4	Operating Status	On / Off
Flow	Packer Pressure	<u>16.0</u> psi	Flow	Packer Pressure	<u>20.0</u> psi
<u>6.7</u> gpm	Temperature	Low X °F	<u>6.7</u> gpm	Temperature	Low X °F
		Med ✓			Med ✓
		High ✓			High ✓
B7) HVOL-5	Operating Status	Off	B8) HVOL-6	Operating Status	Off
Flow	Packer Pressure	<u>13.8</u> psi	Flow	Packer Pressure	<u>7.8</u> psi
<u>6.7</u> gpm	Temperature	Low X °F	<u>6.7</u> gpm	Temperature	Low X °F
		Med ✓			Med ✓
		High ✓			High ✓

Route originates to: Troy McFate, DSEI  
CO: Toni Campbell, DSEI  
Treatment Plant File

On arrival was GWOL operating?

Yes / No

6  
M-3 / M-4  
M-5 / M-6

Comments/Notes

C. GROWTH/WATER TREATMENT SYSTEMS

1) Primary Recirc Pump (M-2) Operating Status  
Recirc Pump (M-1) Operating Status

hand / off / auto  
hand / off / auto  
54  
psi

Baffle Pump (M-5) Operating Status  
Baffle Pump (M-6) Operating Status

hand / off / auto  
hand / off / auto  
46  
psi

Hair Catcher Pump Operating Status

hand / off / auto  
49.0  
psi

Front Feed Tank Pressure

69.5 psi

IN Heat Exchanger  
OUT Heat Exchanger

67.6 °F

To Wellfield

134.6 °F

150.2 °F

142.8 °F

8) Thermometer

SAC  
Dz  
Pressure  
Front Feed Tank  
IN Heat Exchanger  
OUT Heat Exchanger  
To Wellfield

9) Pressure

Before Clay 39 psi  
After Clay 37 psi  
Differential 2 psi

Before Charcoal 38 psi  
After Charcoal 38 psi  
Differential 0 psi

10) Effluent Sampler

Motor Readings  
Time Read

2.552, 980 g/min  
11 GPM

D. SAMPLE COLLECTION DATA

Sample Collected

Location	Analyte	Classification	Sample Collected
Influent	Oil and grease (O&G)	GWWUE	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWWUE	Yes / No
Separator	Oil	GWWUE	Yes / No
Separator	Total suspended solids (TSS)	GWWUE	Yes / No
Separator	pH	GWWUE	Yes / No
Effluent	TSS	GWWUE	Yes / No
Effluent	Arcene (Ae)	GWWUE	Yes / No
Effluent	Biodegradable O2 demand (BOD)	GWWUE	Yes / No
Effluent	SVOCs	GWWUE	Yes / No
Effluent	pH	GWWUE	Yes / No
Effluent	Temperature	GWWUE	Yes / No

E. PUMPING SYSTEMS

1) Building Pump Level Switch Clear of Debris Yes / No  
Emptyump

2) Vapor Phase Blower Operating Currently? No / No

3) Building Ventilation Operating Currently? Yes / No

4) Building Louver Clear of Debris Yes / No

5) Pipelines and Valves Present Yes / No

6) Building Interior Lights Operating? Yes / No

7) Building Exterior Lights Operating? Yes / No

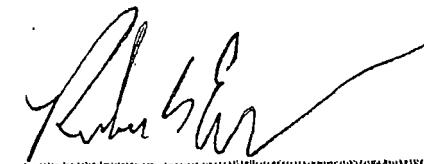
8) Building Temperature 75 °F

9) Outdoor Temperature

10) DINAP Valve Status hand / off / auto

11) Portable Water Valve Status hand / off / auto

General Comments: Section Blow Down

Date:	11/12/10
Operator:	Rober G.
Signature:	



C. GROUNDWATER TREATMENT SYSTEM

(1) Pump  
Reactor Pump (M-3)  
Reactor Pump (M-1)

Operating Status  
Operating Status  
Procedure

hand /  / auto  
hand / off /   
50

Effluent Pump (M-5)  
Effluent Pump (M-4)

Operating Status  
Operating Status

hand /  / auto  
hand / off /

Heat Exchanger Pump  
Heat Exchanger Pump

Operating Status  
Procedure

hand / off /   
48

D. Piping System

Front Feed Tank

63.8

IN Heat Exchanger  
OUT Heat Exchanger

125.6  
140.0

To Wellfield

125.1

E. Pressure

Before Olay 38 psi

Before Clarifier 38 psi

After Olay 39 psi

After Clarifier 37 psi

Differential 0 psi

Differential

F. Current Water

Water Readings

263320 gallons  
1200.

Time Read

G. BUILDING SYSTEMS

(1) Building Sump Level Switch

Clear of Water

Yes / No

Empty pump

Yes / No

(2) Vapor Phase Blower

Operating Correctly?  Yes / No

(3) Building Ventilat Fan

Operating Correctly?  Yes / No

(4) Building Louver

Open or closed?  Yes / No

(5) Piping and Valves

Intact?  Yes / No

(6) Building Interior Lights

Operational?  Yes / No

(7) Building Exterior Lights

Operational?  Yes / No

(8) Building Temperature

73 °F

(9) Outdoor Temperature

48 °F

(10) DNAPL Sealant

Stable

hand /  / auto

(11) Potable Water Sealant

Stable

hand / off /

General Comments

H. SAMPLE COLLECTION DATA

Location	Attribute	Measurement	Sample Collected
Influent	Oil and grease (O&G)	GWQQA	Yes / <input checked="" type="checkbox"/>
Influent	Ammonium Nitrogen (NH4-N)	GWQQA	Yes / No
Separator	DO	GWQQA	Yes / No
Separator	Total Dissolved Solids (TDS)	GWQQA	Yes / No
Separator	pH	GWQQA	Yes / No
Influent	TSS	GWQQA	Yes / No
Influent	Arsenic (As)	GWQQA	Yes / No
Influent	biochemical O2 demand (BOD)	GWQQA	Yes / No
Influent	BVOCs	GWQQA	Yes / No
Influent	pH	GWQQA	Yes / No
Influent	Temperature	GWQQA	Yes / No

Date: 11/19-10

Operator: Sheron

Signature: J. L. S.

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-11

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	11-18-2010	115.6°F	17' 28"
MW5D	11-18-2010	74.5°F	16' 25"
MW20D	11-18-2010	84.4°F	18'
MW21D	11-18-2010	96.3°F	17' to 21' 3"-water
MW22D	11-18-2010	100.1°F	17' 55"
MW23D	11-18-2010	118.4°F	17' 5"

**Notes:**

Feet bgs = Feet below ground surface.

Temperatures collected @ 30' BGS for MW 5D,5S,20D-23D

LNAPL present from

Boiler Temperature @ 140 (F) Steam Pressure @ .5

PTL 11/17/10

Site Name: Jenson-Wright Corporation Superfund Site  
Job Number: Bodilie 18007  
Site Location: 000 West 22nd Street, Granite City, IL

TABLE 2  
OPERATIONS LOG

Route Originals to: Troy McFate, DEI  
CO: Tom Campbell, DEI  
Treatment Plant File

Date: 12/08/10

On arrival was GWQJ operating?

Yes / No

A. GROUNDWATER FLOW

A1) Combined Extraction Flowrate

50.0 gpm

A2) Recirculation Flowrate

46 gpm

A3) Calculated Effluent Flowrate

40.10 gpm

Number of HWI Wells Operating

6

Recirculation Pump Running

M-3 / M-2

Effluent Pump Running

M-3 / M-2

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) HWI-1 (M-1) Operating Status

On / off / auto

Flow Temperature

52.0 °F

25.0 gpm

B2) HWI-2 (M-2) Operating Status

On / off

B3) HWI-3 (M-3) Operating Status

On / off

Flow Pressure

4.0 psi

6.7 gpm

Temperature

Low X °F

Mod

✓ °F

High

✓ °F

B4) HWI-4 (M-4) Operating Status

On / off

Flow Pressure

16.0 psi

6.7 gpm

Temperature

Low X °F

Mod

✓ °F

High

✓ °F

B5) HWI-5 (M-5) Operating Status

On / off

Flow Pressure

1.0 psi

6.7 gpm

Temperature

Low X °F

Mod

✓ °F

High

✓ °F

B6) HWI-6 (M-6) Operating Status

On / off

Flow Pressure

13.0 psi

6.7 gpm

Temperature

Low X °F

Mod

✓ °F

High

✓ °F

B7) HWI-7 (M-7) Operating Status

On / off

Flow Pressure

5.0 psi

6.7 gpm

Temperature

Low X °F

Mod

✓ °F

High

✓ °F

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

(1) Pump 1 Recirc Pump (M-3) Operating Status

Recirc Pump (M-4) Operating Status

Pressure

Effluent Pump (M-5) Operating Status

Effluent Pump (M-6) Operating Status

Pressure

Head Reclaiming Pump Operating Status

SUC Pressure

PSI

Pressure

8) Filter Operator

Front Feed Tank

IN Head Exchanger

OUT Head Exchanger

To Wellfield

Mod. Auto

140°F

Steam PSI: 0.5 PSI

9) Pressure

Bulge Clay 36 psi

After Clay 32 psi

Differential 6 psi

hand / off / auto

hand / off /

?

hand / off /

hand / off /

49 psi

42 psi

39 psi

68.0 psi

131.7 psi

142.5 psi

138.2 psi

4) Effluent Filter

Motor Readings

2,801,770 gallons

Time Read

10.0 GPM

D. SAMPLE COLLECTION DATA

Sample Number: 10000 Date: 12/03/10

Location Analyte

Measurement

Sample Collected

Influent Oil and Grease (O&G)

GWWQA

Yes / No

Influent Dissolved Oxygen (DO)

GWWQA

Yes / No

Separator DO

GWWQA

Yes / No

Separator Total suspended solids (TSS)

GWWQA

Yes / No

Separator pH

GWWQA

Yes / No

Effluent TSS

GWWQA

Yes / No

Effluent Arsenic (As)

GWWQA

Yes / No

Effluent Biochemical Oxygen Demand (BOD)

GWWQA

Yes / No

Effluent SVOCs

GWWQA

Yes / No

Effluent pH

GWWQA

Yes / No

Effluent Temperature

GWWQA

Yes / No

E. PUMPING SYSTEMS

1) Building Pump Level Switch

Clear of Obstacles

Yes / No

Empty Pump

Yes / No

Pump Act

2) Vapor Phase Blower

Operating Correctly? Yes / No

3) Building Ventilation Fan

Operating Correctly? Yes / No

4) Building Louver

Clear of Obstacles Yes / No

5) Piping and Valves

Leaking? Yes / No

6) Building Interior Lights

Operational? Yes / No

7) Building Exterior Lights

Operational? Yes / No

8) Building Temperature

72 °F

9) Outdoor Temperature

24 °F

10) DNAPL Solenoid

Status hand / off / auto

11) Portable Water Solenoid

Status hand / off / auto

12) General Comments

NEED TO BACKWASH CLAY

TANK: NEED NEW PRESSURE

CHARGES FOR RECIRC PUMPS

Date: 12/03/10

Operator: Rick Evers

Signature: [Signature]

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-11

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S		116.1	16.99
MW5D		77.6	15.81
MW20D		88.2	17.76
MW21D		90.5	16.71 to 19.64
MW22D		121.7	17.26
MW23D		117.5	17.24

**Notes:**

Feet bgs = Feet below ground surface.

Temperatures collected @ 30' BGS for MW 5D,5S,20D-23D

LNAPL present from

Boiler Temperature @ 140 (F) Steam Pressure @ .5

TABLE Z  
OPERATIONS LOG

Site Name: Jennison-Wright Corporation Superfund Site  
Job Number: Bodine 118337  
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI  
CC: Tom Campbell, EEEI  
Treatment Plant File

Date: 12-14-00

On arrival was GWOU operating?

Yes / No

A. GWOU FLOW

A1) Combined Extraction Flowrate

49.5 gpm

A2) Recirculation Flowrate

39.3 gpm

A3) Calculated Effluent Flowrate

10.2 gpm

Number of HWI Wells Operating

6

Recirculation Pump Running

M-3 / M-4

Effluent Pump Running

M-5 / M-6

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1) Operating Status

hand / off / auto  
Flow 49 °F

Temperature 52 gpm

B2) EW02 (M-2)

Operating Status

hand / off / auto  
Flow 52 °F

B3) HWI-1 Operating Status

On / Off

Flow 6.7 gpm

Packer Pressure 4.0 psi

Temperature Low °F  
Med °F  
High °F

B4) HWI-2

Operating Status

On / Off

B5) HWI-3 Operating Status

On / Off

Flow 6.7 gpm

Packer Pressure 14.0 psi

Temperature Low °F  
Med °F  
High °F

B6) HWI-4

Operating Status

On / Off

B7) HWI-5 Operating Status

On / Off

Flow 6.7 gpm

Packer Pressure 10.0 psi

Temperature Low °F  
Med °F  
High °F

B8) HWI-6

Operating Status

On / Off

Comments/Notes

### C. GROUNDWATER TREATMENT SYSTEM

1) Pumps Recirc. Pump (M-3) Operating Status

Recirc. Pump (M-4) Operating Status

Pressure

hand / off / auto

hand / off / auto

22 psi

Effluent Pump (M-5) Operating Status

Effluent Pump (M-6) Operating Status

Pressure

hand / off / auto

hand / off / auto

52 psi

Heat Exchanger Pump Operating Status

M00 140°F

Pressure

hand / off / auto

40 / 60 psi

STEAM PSI 0.5

2) Thermometers

From Feed Tank

44.6 °F

IN Heat Exchanger

135.5 °F

OUT Heat Exchanger

148.8 °F

To Wellfield

142.5 °F

3) Pressure

Before Clay 8 psi

10) Building Temperature

65 °F

After Clay 6 psi

11) Outdoor Temperature

11 °F

Differential 2 psi

12) DNAPL Solenoid

Status

hand / off / auto

4) Effluent Totalizer

Meter Reading

2832650 gallons

Time Read

1014

General Comments

### E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date\_mmddyy> GWOUA093009

Location Analyte Identification

Influent Oil and grease (O&G) GWOUA

Sample Collected

Yes / No

Influent Semi-volatile organics (SVOCs) GWOUA

Yes / No

Separator O&G GWOUB

Yes / No

Separator Total suspended solids (TSS) GWOUB

Yes / No

Separator pH GWOUB

Yes / No

Effluent TSS GWOUE

Yes / No

Effluent Arsenic (As) GWOUE

Yes / No

Effluent Biochemical O<sub>2</sub> demand (BOD) GWOUE

Yes / No

Effluent SVOCs GWOUE

Yes / No

Effluent pH GWOUE

Yes / No

Effluent Temperature GWOUE

Yes / No

### D. BUILDING SYSTEMS

1) Building Sump Level Switch

Clear of Debris

Yes / No

Empty sump

Yes / ND

3) Vapor Phase Blower

Operating Correctly?

Yes / No

4) Building Exhaust Fan

Operating Correctly?

Yes / No

5) Building Louver

Clear of debris

Yes / No

7) Piping and valves

Inspect

Yes / No

8) Building Interior Lights

Operational?

Yes / No

9) Building Exterior Lights

Operational?

Yes / No

10) Building Temperature

65 °F

11) Outdoor Temperature

11 °F

12) DNAPL Solenoid

Status

hand / off / auto

13) Potable Water Solenoid

Status

hand / off / auto

Date: 10-19-10

Operator: BRETT BAXTER

Signature: Brett Baxter

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-11

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	12-23	116.1	17.38
MW5D	12-22	78.7	16.15
MW20D	12-22	90.5	18.1
MW21D	12-22	89.7	17.03 - 19.98
MW22D	12-22	130.9	17.62
MW23D	12-22	116.2	17.60

**Notes:**

Feet bgs = Feet below ground surface.

Temperatures collected @ 30' BGS for MW 5D,5S,20D-23D

LNAPL present from

Boiler Temperature @ 140 (F) Steam Pressure @ .5

TABLE 2  
OPERATIONS LOG

Site Name: Jennecon-Wright Corporation Superfund Site  
Job Number: Bodine 118007  
Site Location: 800 West 22nd Street, Granite City, IL

Date: 12/22/10

A. EWOL FLOW

A1) Concentrated Extraction Flowrate

51 gpm

A2) Recirculation Flowrate

46 gpm

A3) Diluted Effluent Flowrate

53 gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EWOL (M-1) Operating Status

hand / off / auto

Flow  
25.0 gpm

Temperature  
52 °F

B3) HWI-1 Operating Status

On / Off

Flow  
6.7 gpm

Packer Pressure  
15 psi

Flow  
6.7 gpm

Temperature  
Low \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
Med \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
High \_\_\_\_\_ °F

Flow  
6.7 gpm

Operating Status  
On / Off

Packer Pressure  
15 psi

Flow  
6.7 gpm

Temperature  
Low \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
Med \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
High \_\_\_\_\_ °F

Route originates to: Troy McFate, BIEB1

CO: Tom Campbell, BIEE1

Treatment Plant File

On arrival was EWOL operating?

Yes  No

6

M-3 / M-4

M-4 / M-8

B2) HWI-2 (M-2)

Operating Status

hand / off /

Flow  
25.0 gpm

Temperature  
58 °F

B4) HWI-3

Operating Status

On / Off

Flow  
6.7 gpm

Packer Pressure  
15 psi

Flow  
6.7 gpm

Temperature  
Low \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
Med \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
High \_\_\_\_\_ °F

Flow  
6.7 gpm

Operating Status  
Off / On

Packer Pressure  
15 psi

Flow  
6.7 gpm

Temperature  
Low \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
Med \_\_\_\_\_ °F

Flow  
6.7 gpm

Temperature  
High \_\_\_\_\_ °F

Comments/Notes

**Groundwater Elevations and Temperature**

Jennison Wright NPL Site

Granite City, Illinois

Bodine Project Number 119386-11

Well ID	Date	Temperature (F)	Depth to Water (Feet bgs)
MW5S	12/29/10	116,1	17.49
MW5D	/	79.4	17.32
MW20D		95.5	18.26
MW21D		89.1	17.17 → 20.31
MW22D		122.1	17.77
MW23D	✓	116,1	17.74

**Notes:**

Feet bgs = Feet below ground surface.

Temperatures collected @ 30' BGS for MW 5D,5S,20D-23D

LNAPL present from

Boiler Temperature @ 140 (F) Steam Pressure @ .5

Site Name: Jennings Wright Corporation Superfund Site  
 Job Number: Building 18007  
 Site Location: 800 West 22nd Street, Granite City, IL

Date: 12/29/00

A. GWOLU P.D.O.V.

A1) Groundwater Extraction Flowrate: 50.7 gpm  
 A2) Recirculation Flowrate: 02.52 gpm  
 A3) Onsite treated Effluent Flowrate: 46.47/10 gpm

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EWOL-1 (M-1) Operating Status: Hand / off / auto  
 Flow: 25 gpm  
 Temperature: 62 °F

B3) HWI-1 Operating Status: ON / off  
 Flow: 6.7 gpm  
 Packer Pressure: 77.8 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

B5) HWI-3 Operating Status: ON / off  
 Flow: 6.7 gpm  
 Packer Pressure: 77.15 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

B7) HWI-5 Operating Status: ON / off  
 Flow: 6.7 gpm  
 Packer Pressure: 77.15 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

TABLE 2  
 OPERATIONS LOG

Route originals to: Troy McRae, BIEB  
 CO: Tom Campbell, BIEB  
 Treatment Plant File

On arrival was GWOLU operating?

Yes / No

Number of HWI Wells Operating  
 Recirculation Pump Running  
 Effluent Pump Running

6  
M-1 / M-4  
M-4 / M-8

B2) HWI-2 (M-2) Operating Status: Hand / off / auto  
 Flow: 6.7 gpm  
 Temperature: 64 °F

B4) HWI-3 Operating Status: ON / off  
 Flow: 6.7 gpm  
 Packer Pressure: 77.15 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

B6) HWI-4 Operating Status: ON / off  
 Flow: 6.7 gpm  
 Packer Pressure: 77.15 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

B8) HWI-5 Operating Status: ON / off  
 Flow: 7 gpm  
 Packer Pressure: 7 psi  
 Temperature: Low \_\_\_\_\_ °F  
 Med \_\_\_\_\_ °F  
 High \_\_\_\_\_ °F

Comments/Notes:

Hwi-3 Vault Full of water

Hwi-4 Vault Full of water

**C. GROUNDWATER TREATMENT SYSTEM**

1) Pump	Recirc Pump (M-2)	Operating Status	hand / off / auto
	Recirc Pump (M-1)	Operating Status	hand / off / auto
		Procedure	✓
Effluent Pump (M-3)	Operating Status	hand / off / auto	✓
Effluent Pump (M-4)	Operating Status	hand / off / auto	✓
		Procedure	44
Hemis Biologizing Pump	Operating Status	hand / off / auto	✓
	Suction Pressure	44	psi
	Discharge	64	psi

**D. THERMOMETERS**

From Feed Tank  
IN Heat Exchanger  
OUT Heat Exchanger  
To Wellfield

66.2 °F  
120.3 °F  
140.5 °F  
140.1 °F

**E. PUMPS**

Before Clay 37 psi  
After Clay 34 psi  
Differential 3 psi

Before Carbon 34 psi  
After Carbon 34 psi  
Differential 0 psi

**F. EFFLUENT TREATMENT**

Water Reading  
Time Read

2997.910 gallons  
10.1

**G. SAMPLE COLLECTION DATA**

Location	Sample	Method	Sample Collected
Effluent	Oil and grease (Q80)	GWWQA	Yes / No
Effluent	Total volatile organic (SVOC)	GWWQA	Yes / No
Separator	Oil	GWWQA	Yes / No
Separator	Total suspended solids (TSS)	GWWQA	Yes / No
Separator	pH	GWWQA	Yes / No
Effluent	TSS	GWWQA	Yes / No
Effluent	Arsenic (As)	GWWQA	Yes / No
Effluent	Chromium (Cr) demand (EDD)	GWWQA	Yes / No
Effluent	SVOCs	GWWQA	Yes / No
Effluent	pH	GWWQA	Yes / No
Effluent	Temperature	GWWQA	Yes / No

**D. BUILDING SYSTEMS**

1) Building Sump Level Switch	Clear of debris	Yes / No
	Empty pump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Ventilation Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and Valves	Leaking?	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		75 °F
9) Outdoor Temperature		31 °F
10) DNAPL Bolometer	Status	hand / off / auto
11) Portable Water Bolometer	Status	hand / off / auto

**General Comments**

Date: 12/29/10

Operator: Josh Feltner

Signature: JF

**APPENDIX B**

**GCTWWTP Discharge Permit Analytical Results**

## ANALYTICAL REPORT

Job Number: 500-29093-1

Job Description: Jennison Wright

For:

Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601  
Attention: Troy McFate



Approved for release.  
Cindy R Pritchard  
Project Mgmt. Assistant  
11/12/2010 2:18 PM

Designee for  
Richard C Wright  
Project Manager II  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)  
11/12/2010

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:  
TestAmerica Chicago 100201  
TestAmerica West Sacramento CA00044

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.  
TestAmerica Chicago 2417 Bond Street, University Park, IL 60484  
Tel (708) 534-5200 Fax (708) 534-5211 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**500-29093-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**

Method(s) 625: The laboratory control sample (LCS) for batch 99268 exceeded control limits for the following non-controlled analyte: Benzidine. No corrective action was required. GCRWWTP-GWOUE-11042010 (500-29093-1)

No other analytical or quality issues were noted.

**Metals**

Method(s) 200.7 Rev 4.4: The ICV in AD batch 99360 was slightly low for Zn at 94% recovery. All bracketing CCV's were within the control limits and all associated samples have been reported.

Method(s) 200.7 Rev 4.4: The ICSA for AD batch 99360 exceeded the acceptance limits for Cd. All associated samples are nondetects and have been reported.

No other analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-29093-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-29093-1	GCRWWTP-GWOUUE-11042010				
2-Methylphenol	7.3		4.7	ug/L	625
2,4-Dimethylphenol	8.2		4.7	ug/L	625
Acenaphthene	3.3	J	4.7	ug/L	625
Phenolics, Total Recoverable	0.060		0.0050	mg/L	420.2
Biochemical Oxygen Demand	2.5		2.0	mg/L	SM 5210B
<i>Total Recoverable</i>					
Arsenic	0.0032	J	0.0050	mg/L	200.7 Rev 4.4
Barium	0.35		0.0050	mg/L	200.7 Rev 4.4
Copper	0.0013	J	0.0050	mg/L	200.7 Rev 4.4
Lead	0.0022	J	0.0025	mg/L	200.7 Rev 4.4
Iron	4.8		0.10	mg/L	200.7 Rev 4.4
Zinc	0.0069	J B ^	0.010	mg/L	200.7 Rev 4.4
Manganese	0.47		0.0050	mg/L	200.7 Rev 4.4

## METHOD SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29093-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Semivolatile Organic Compounds (GC/MS)	TAL CHI	40CFR136A 625	
Liquid-Liquid Extraction	TAL CHI		40CFR136A 625
Metals (ICP)	TAL CHI	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL CHI		EPA 200.7
Mercury (CVAA)	TAL CHI	EPA 245.1	
Preparation, Mercury	TAL CHI		EPA 245.1
HEM and SGT-HEM	TAL CHI	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL CHI		1664A 1664A
Phenolics, Total Recoverable	TAL CHI	MCAWW 420.2	
Distillation, Phenolics	TAL CHI		Distill/Phenol
Solids, Total Suspended (TSS)	TAL CHI	SM SM 2540D	
Cyanide, Total	TAL CHI	SM SM 4500 CN E	
Distillation, Cyanide	TAL CHI		Distill/CN
BOD, 5-Day	TAL CHI	SM SM 5210B	

### Lab References:

TAL CHI = TestAmerica Chicago

### Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

## METHOD / ANALYST SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29093-1

Method	Analyst	Analyst ID
40CFR136A 625	Bergen, Joe	JB
EPA 200.7 Rev 4.4	Smith, Todd D	TDS
EPA 245.1	Roach, Jessica	JR
1664A 1664A	Brogan, Mary T	MTB
MCAWW 420.2	Ficarello, Peter M	PMF
SM SM 2540D	Boyd, Cheryl L	CLB
SM SM 4500 CN E	Moore, Colleen L	CLM
SM SM 5210B	Brogan, Mary T	MTB

## SAMPLE SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29093-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-29093-1	GCRWWTP-GWOU-E-1104 2010	Water	11/04/2010 1015	11/05/2010 1030

# **SAMPLE RESULTS**

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29093-1

Client Sample ID: GCRWWTP-GWOUE-11042010  
 Lab Sample ID: 500-29093-1

Date Sampled: 11/04/2010 1015  
 Date Received: 11/05/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution	
<b>Method: 625</b>			Date Analyzed:	11/12/2010 1301		
<b>Prep Method: 625</b>			Date Prepared:	11/05/2010 1932		
N-Nitrosodimethylamine	<9.3	ug/L	4.9	9.3	1.0	
Phenol	<9.3	ug/L	0.83	9.3	1.0	
Bis(2-chloroethyl)ether	<4.7	ug/L	1.3	4.7	1.0	
2,2'-oxybis[1-chloropropane]	<4.7	ug/L	1.3	4.7	1.0	
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	1.0	
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0	
2-Chlorophenol	<4.7	ug/L	0.99	4.7	1.0	
2-Methylphenol	7.3	ug/L	1.0	4.7	1.0	
Nitrobenzene	<4.7	ug/L	1.2	4.7	1.0	
Bis(2-chloroethoxy)methane	<4.7	ug/L	1.3	4.7	1.0	
1,2,4-Trichlorobenzene	<4.7	ug/L	1.3	4.7	1.0	
Isophorone	<4.7	ug/L	1.4	4.7	1.0	
2,4-Dimethylphenol	8.2	ug/L	1.5	4.7	1.0	
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0	
Naphthalene	<4.7	ug/L	1.3	4.7	1.0	
2,4-Dichlorophenol	<4.7	ug/L	1.3	4.7	1.0	
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0	
Hexachlorocyclopentadiene	<9.3	ug/L	1.2	9.3	1.0	
2-Chloronaphthalene	<4.7	ug/L	1.3	4.7	1.0	
4-Chloro-3-methylphenol	<4.7	ug/L	1.3	4.7	1.0	
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	1.0	
2-Nitrophenol	<4.7	ug/L	1.1	4.7	1.0	
Dimethyl phthalate	<4.7	ug/L	1.1	4.7	1.0	
2,4-Dinitrophenol	<19	ug/L	7.6	19	1.0	
Acenaphthylene	<4.7	ug/L	1.4	4.7	1.0	
2,4-Dinitrotoluene	<4.7	ug/L	1.4	4.7	1.0	
Acenaphthene	3.3	J	ug/L	1.4	4.7	1.0
4-Nitrophenol	<19	ug/L	3.4	19	1.0	
Fluorene	<4.7	ug/L	1.5	4.7	1.0	
1,2-Diphenylhydrazine	<4.7	ug/L	1.3	4.7	1.0	
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0	
Hexachlorobenzene	<4.7	ug/L	1.2	4.7	1.0	
Diethyl phthalate	<4.7	ug/L	1.2	4.7	1.0	
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0	
Pentachlorophenol	<19	ug/L	7.0	19	1.0	
N-Nitrosodiphenylamine	<4.7	ug/L	1.7	4.7	1.0	
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0	
Phenanthrene	<4.7	ug/L	1.3	4.7	1.0	
Anthracene	<4.7	ug/L	1.3	4.7	1.0	

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29093-1

Client Sample ID: GCRWWTP-GWOUUE-11042010  
 Lab Sample ID: 500-29093-1

Date Sampled: 11/04/2010 1015  
 Date Received: 11/05/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Dibenzofuran	<4.7	ug/L	1.4	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<47 *	ug/L	9.3	47	1.0
Fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Pyrene	<4.7	ug/L	1.3	4.7	1.0
Butyl benzyl phthalate	<4.7	ug/L	1.2	4.7	1.0
Benzo[a]anthracene	<4.7	ug/L	1.1	4.7	1.0
Chrysene	<4.7	ug/L	1.2	4.7	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	<9.3	ug/L	1.0	9.3	1.0
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0
Benzo[b]fluoranthene	<4.7	ug/L	1.1	4.7	1.0
Benzo[k]fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Benzo[a]pyrene	<4.7	ug/L	1.1	4.7	1.0
Indeno[1,2,3-cd]pyrene	<4.7	ug/L	1.2	4.7	1.0
Dibenz(a,h)anthracene	<4.7	ug/L	1.4	4.7	1.0
Benzo[g,h,i]perylene	<4.7	ug/L	1.3	4.7	1.0
3 & 4 Methylphenol	<4.7	ug/L	1.2	4.7	1.0
Surrogate				Acceptance Limits	
2-Fluorophenol	30	%		10 - 110	
Phenol-d5	22	%		10 - 110	
Nitrobenzene-d5	61	%		28 - 110	
2-Fluorobiphenyl	65	%		31 - 110	
2,4,6-Tribromophenol	97	%		34 - 116	
Terphenyl-d14	94	%		20 - 133	

Method: Total Recoverable-200.7 Rev 4.4

Date Analyzed: 11/10/2010 0018

Prep Method: 200.7

Date Prepared: 11/08/2010 0800

Arsenic	0.0032	J	mg/L	0.0013	0.0050	1.0
Barium	0.35		mg/L	0.00081	0.0050	1.0
Cadmium	<0.0010	^	mg/L	0.00022	0.0010	1.0
Chromium	<0.0050		mg/L	0.00076	0.0050	1.0
Copper	0.0013	J	mg/L	0.0013	0.0050	1.0
Lead	0.0022	J	mg/L	0.00084	0.0025	1.0
Nickel	<0.0050		mg/L	0.00084	0.0050	1.0
Selenium	<0.0050		mg/L	0.0013	0.0050	1.0
Silver	<0.0025		mg/L	0.00076	0.0025	1.0
Iron	4.8		mg/L	0.029	0.10	1.0
Zinc	0.0069	J B ^	mg/L	0.0022	0.010	1.0
Manganese	0.47		mg/L	0.00084	0.0050	1.0

Method: 245.1

Date Analyzed: 11/10/2010 1426

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-29093-1

Client Sample ID: GCRWWTP-GWOUE-11042010  
Lab Sample ID: 500-29093-1

Date Sampled: 11/04/2010 1015  
Date Received: 11/05/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Prep Method: 245.1</b> Mercury	<0.00020		Date Prepared: 11/08/2010 1541 mg/L 0.000051 0.00020		1.0
<b>Method: 1664A</b> <b>Prep Method: 1664A</b> HEM (Oil & Grease)	<5.0		Date Analyzed: 11/10/2010 1611 Date Prepared: 11/10/2010 1031 mg/L 1.9 5.0		1.0
<b>Method: 420.2</b> <b>Prep Method: Distill/Phenol</b> Phenolics, Total Recoverable	0.060		Date Analyzed: 11/10/2010 0846 Date Prepared: 11/09/2010 0900 mg/L 0.0029 0.0050		1.0
<b>Method: SM 2540D</b> Total Suspended Solids	<5.0		Date Analyzed: 11/07/2010 1954 mg/L 1.0 5.0		1.0
<b>Method: SM 4500 CN E</b> <b>Prep Method: Distill/CN</b> Cyanide, Total	<0.010		Date Analyzed: 11/10/2010 1238 Date Prepared: 11/10/2010 0925 mg/L 0.0011 0.010		1.0
<b>Method: SM 5210B</b> Biochemical Oxygen Demand	2.5		Date Analyzed: 11/05/2010 1206 mg/L 2.0 2.0		1.0

## DATA REPORTING QUALIFIERS

Client: Bodine Environmental Services

Job Number: 500-29093-1

Lab Section	Qualifier	Description
GC/MS Semi VOA	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 500-99268</b>					
LCS 500-99268/2-A	Lab Control Sample	T	Water	625	
MB 500-99268/1-A	Method Blank	T	Water	625	
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	625	
<b>Analysis Batch: 500-99724</b>					
LCS 500-99268/2-A	Lab Control Sample	T	Water	625	500-99268
MB 500-99268/1-A	Method Blank	T	Water	625	500-99268
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	625	500-99268
<b>Report Basis</b>					
T = Total					
<b>Metals</b>					
<b>Prep Batch: 500-99309</b>					
LCS 500-99309/2-A	Lab Control Sample	R	Water	200.7	
MB 500-99309/1-A	Method Blank	R	Water	200.7	
500-29093-1	GCRWWTP-GWOUE-11042010	R	Water	200.7	
500-29093-1DU	Duplicate	R	Water	200.7	
500-29093-1MS	Matrix Spike	R	Water	200.7	
<b>Prep Batch: 500-99335</b>					
LCS 500-99335/2-A	Lab Control Sample	T	Water	245.1	
MB 500-99335/1-A	Method Blank	T	Water	245.1	
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	245.1	
<b>Analysis Batch: 500-99360</b>					
LCS 500-99309/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	500-99309
MB 500-99309/1-A	Method Blank	R	Water	200.7 Rev 4.4	500-99309
500-29093-1	GCRWWTP-GWOUE-11042010	R	Water	200.7 Rev 4.4	500-99309
500-29093-1DU	Duplicate	R	Water	200.7 Rev 4.4	500-99309
500-29093-1MS	Matrix Spike	R	Water	200.7 Rev 4.4	500-99309
<b>Analysis Batch: 500-99549</b>					
LCS 500-99335/2-A	Lab Control Sample	T	Water	245.1	500-99335
MB 500-99335/1-A	Method Blank	T	Water	245.1	500-99335
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	245.1	500-99335

### Report Basis

R = Total Recoverable

T = Total

TestAmerica Chicago

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch		
		Basis	Client Matrix	Method			
<b>General Chemistry</b>							
<b>Analysis Batch:500-99192</b>							
LCS 500-99192/2	Lab Control Sample	T	Water	SM 5210B			
USB 500-99192/1	Unseeded Control Blank	T	Water	SM 5210B			
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	SM 5210B			
<b>Analysis Batch:500-99248</b>							
LCS 500-99248/2	Lab Control Sample	T	Water	SM 2540D			
MB 500-99248/1	Method Blank	T	Water	SM 2540D			
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	SM 2540D			
<b>Prep Batch: 500-99401</b>							
LCS 500-99401/2-A	Lab Control Sample	T	Water	Distill/Phenol			
MB 500-99401/1-A	Method Blank	T	Water	Distill/Phenol			
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	Distill/Phenol			
<b>Prep Batch: 500-99484</b>							
LCS 500-99484/2-A	Lab Control Sample	T	Water	1664A			
MB 500-99484/1-A	Method Blank	T	Water	1664A			
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	1664A			
<b>Analysis Batch:500-99485</b>							
LCS 500-99484/2-A	Lab Control Sample	T	Water	1664A	500-99484		
MB 500-99484/1-A	Method Blank	T	Water	1664A	500-99484		
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	1664A	500-99484		
<b>Analysis Batch:500-99497</b>							
LCS 500-99401/2-A	Lab Control Sample	T	Water	420.2	500-99401		
MB 500-99401/1-A	Method Blank	T	Water	420.2	500-99401		
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	420.2	500-99401		
<b>Prep Batch: 500-99499</b>							
HLCS 500-99499/3-A	High Level Control Sample	T	Water	Distill/CN			
LCS 500-99499/2-A	Lab Control Sample	T	Water	Distill/CN			
LLCS 500-99499/4-A	Low Level Control Sample	T	Water	Distill/CN			
MB 500-99499/1-A	Method Blank	T	Water	Distill/CN			
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	Distill/CN			
<b>Analysis Batch:500-99529</b>							
HLCS 500-99499/3-A	High Level Control Sample	T	Water	SM 4500 CN E	500-99499		
LCS 500-99499/2-A	Lab Control Sample	T	Water	SM 4500 CN E	500-99499		
LLCS 500-99499/4-A	Low Level Control Sample	T	Water	SM 4500 CN E	500-99499		
MB 500-99499/1-A	Method Blank	T	Water	SM 4500 CN E	500-99499		
500-29093-1	GCRWWTP-GWOUE-11042010	T	Water	SM 4500 CN E	500-99499		

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
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#### Report Basis

T = Total

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Surrogate Recovery Report

#### 625 Semivolatile Organic Compounds (GC/MS)

##### Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
500-29093-1	GCRWWTP-GWOUE -11042010	30	22	61	65	97	94
MB 500-99268/1-A		28	21	54	48	54	79
LCS 500-99268/2-A		36	28	72	78	97	100

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	10-110
PHL = Phenol-d5	10-110
NBZ = Nitrobenzene-d5	28-110
FBP = 2-Fluorobiphenyl	31-110
TBP = 2,4,6-Tribromophenol	34-116
TPH = Terphenyl-d14	20-133

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

Method Blank - Batch: 500-99268

Method: 625

Preparation: 625

Lab Sample ID: MB 500-99268/1-A  
Client Matrix: Water

Analysis Batch: 500-99724  
Prep Batch: 500-99268

Instrument ID: CMS20  
Lab File ID: 99193M.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 1000 mL

Date Analyzed: 11/12/2010 1013

Final Weight/Volume: 1.0 mL

Date Prepared: 11/05/2010 1932

Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
N-Nitrosodimethylamine	<10		5.2	10
Phenol	<10		0.89	10
Bis(2-chloroethyl)ether	<5.0		1.4	5.0
2,2'-oxybis[1-chloropropane]	<5.0		1.4	5.0
N-Nitrosodi-n-propylamine	<5.0		1.6	5.0
Hexachloroethane	<5.0		1.2	5.0
2-Chlorophenol	<5.0		1.1	5.0
2-Methylphenol	<5.0		1.1	5.0
Nitrobenzene	<5.0		1.3	5.0
Bis(2-chloroethoxy)methane	<5.0		1.4	5.0
1,2,4-Trichlorobenzene	<5.0		1.4	5.0
Isophorone	<5.0		1.4	5.0
2,4-Dimethylphenol	<5.0		1.6	5.0
Hexachlorobutadiene	<5.0		1.5	5.0
Naphthalene	<5.0		1.4	5.0
2,4-Dichlorophenol	<5.0		1.3	5.0
2,4,6-Trichlorophenol	<5.0		1.1	5.0
Hexachlorocyclopentadiene	<10		1.3	10
2-Chloronaphthalene	<5.0		1.4	5.0
4-Chloro-3-methylphenol	<5.0		1.4	5.0
2,6-Dinitrotoluene	<5.0		1.3	5.0
2-Nitrophenol	<5.0		1.2	5.0
Dimethyl phthalate	<5.0		1.2	5.0
2,4-Dinitrophenol	<20		8.1	20
Acenaphthylene	<5.0		1.5	5.0
2,4-Dinitrotoluene	<5.0		1.5	5.0
Acenaphthene	<5.0		1.5	5.0
4-Nitrophenol	<20		3.6	20
Fluorene	<5.0		1.6	5.0
1,2-Diphenylhydrazine	<5.0		1.4	5.0
4-Bromophenyl phenyl ether	<5.0		1.4	5.0
Hexachlorobenzene	<5.0		1.3	5.0
Diethyl phthalate	<5.0		1.3	5.0
4-Chlorophenyl phenyl ether	<5.0		1.3	5.0
Pentachlorophenol	<20		7.5	20
N-Nitrosodiphenylamine	<5.0		1.8	5.0
4,6-Dinitro-2-methylphenol	<20		5.0	20
Phenanthrene	<5.0		1.4	5.0
Anthracene	<5.0		1.4	5.0
Dibenzofuran	<5.0		1.5	5.0
Di-n-butyl phthalate	<5.0		1.2	5.0
Benzidine	<50		10	50
Fluoranthene	<5.0		1.4	5.0

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

**Method Blank - Batch: 500-99268**

**Method: 625**

**Preparation: 625**

Lab Sample ID: MB 500-99268/1-A

Analysis Batch: 500-99724

Instrument ID: CMS20

Client Matrix: Water

Prep Batch: 500-99268

Lab File ID: 99193M.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 1000 mL

Date Analyzed: 11/12/2010 1013

Final Weight/Volume: 1.0 mL

Date Prepared: 11/05/2010 1932

Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Pyrene	<5.0		1.4	5.0
Butyl benzyl phthalate	<5.0		1.3	5.0
Benzo[a]anthracene	<5.0		1.1	5.0
Chrysene	<5.0		1.3	5.0
3,3'-Dichlorobenzidine	<5.0		1.3	5.0
Bis(2-ethylhexyl) phthalate	<10		1.1	10
Di-n-octyl phthalate	<10		1.6	10
Benzo[b]fluoranthene	<5.0		1.1	5.0
Benzo[k]fluoranthene	<5.0		1.4	5.0
Benzo[a]pyrene	<5.0		1.2	5.0
Indeno[1,2,3-cd]pyrene	<5.0		1.3	5.0
Dibenz(a,h)anthracene	<5.0		1.4	5.0
Benzo[g,h,i]perylene	<5.0		1.4	5.0
3 & 4 Methylphenol	<5.0		1.3	5.0
Surrogate	% Rec		Acceptance Limits	
2-Fluorophenol	28		10 - 110	
Phenol-d5	21		10 - 110	
Nitrobenzene-d5	54		28 - 110	
2-Fluorobiphenyl	48		31 - 110	
2,4,6-Tribromophenol	54		34 - 116	
Terphenyl-d14	79		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

**Lab Control Sample - Batch: 500-99268**

**Method: 625**

**Preparation: 625**

Lab Sample ID: LCS 500-99268/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 11/12/2010 1116  
 Date Prepared: 11/05/2010 1932

Analysis Batch: 500-99724  
 Prep Batch: 500-99268  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 99193BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
N-Nitrosodimethylamine	50.0	24.7	49	10 - 200	
Phenol	50.0	19.1	38	5 - 112	
Bis(2-chloroethyl)ether	50.0	30.7	61	12 - 158	
2,2'-oxybis[1-chloropropane]	50.0	34.1	68	36 - 166	
N-Nitrosodi-n-propylamine	50.0	43.5	87	10 - 230	
Hexachloroethane	50.0	34.6	69	40 - 113	
2-Chlorophenol	50.0	33.6	67	23 - 134	
2-Methylphenol	50.0	30.7	61	30 - 146	
Nitrobenzene	50.0	37.5	75	35 - 180	
Bis(2-chloroethoxy)methane	50.0	38.5	77	33 - 184	
1,2,4-Trichlorobenzene	50.0	36.7	73	44 - 142	
Isophorone	50.0	36.8	74	21 - 196	
2,4-Dimethylphenol	50.0	35.3	71	32 - 119	
Hexachlorobutadiene	50.0	38.0	76	24 - 116	
Naphthalene	50.0	38.3	77	21 - 133	
2,4-Dichlorophenol	50.0	38.9	78	39 - 135	
2,4,6-Trichlorophenol	50.0	40.7	81	37 - 144	
Hexachlorocyclopentadiene	50.0	30.6	61	10 - 200	
2-Chloronaphthalene	50.0	41.6	83	60 - 118	
4-Chloro-3-methylphenol	50.0	41.7	83	22 - 147	
2,6-Dinitrotoluene	50.0	49.8	100	50 - 158	
2-Nitrophenol	50.0	38.0	76	29 - 182	
Dimethyl phthalate	50.0	47.4	95	10 - 112	
2,4-Dinitrophenol	50.0	42.3	85	10 - 191	
Acenaphthylene	50.0	44.0	88	33 - 145	
2,4-Dinitrotoluene	50.0	53.3	107	39 - 139	
Acenaphthene	50.0	42.7	85	47 - 145	
4-Nitrophenol	50.0	19.0	38	10 - 132	J
Fluorene	50.0	47.8	96	59 - 121	
4-Bromophenyl phenyl ether	50.0	46.8	94	53 - 127	
Hexachlorobenzene	50.0	50.3	101	10 - 152	
Diethyl phthalate	50.0	51.2	102	10 - 114	
4-Chlorophenyl phenyl ether	50.0	47.2	94	25 - 158	
Pentachlorophenol	50.0	45.5	91	14 - 176	
N-Nitrosodiphenylamine	50.0	49.4	99	10 - 200	
4,6-Dinitro-2-methylphenol	50.0	45.8	92	10 - 181	
Phenanthrrene	50.0	51.3	103	54 - 120	
Anthracene	50.0	50.2	100	27 - 133	
Dibenzofuran	50.0	46.2	92		
Di-n-butyl phthalate	50.0	51.6	103	1 - 118	
Benzidine	50.0	<50	9	10 - 200	*
Fluoranthene	50.0	50.2	100	26 - 137	
Pyrene	50.0	52.1	104	52 - 115	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

**Lab Control Sample - Batch: 500-99268**

**Method: 625**

**Preparation: 625**

Lab Sample ID: LCS 500-99268/2-A  
Client Matrix: Water  
Dilution: 1.0

Date Analyzed: 11/12/2010 1116  
Date Prepared: 11/05/2010 1932

Analysis Batch: 500-99724  
Prep Batch: 500-99268  
Units: ug/L

Instrument ID: CMS20  
Lab File ID: 99193BS.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Butyl benzyl phthalate	50.0	53.6	107	10 - 152	
Benzo[a]anthracene	50.0	54.2	108	33 - 143	
Chrysene	50.0	48.4	97	17 - 168	
3,3'-Dichlorobenzidine	50.0	45.3	91	10 - 262	
Bis(2-ethylhexyl) phthalate	50.0	50.8	102	8 - 158	
Di-n-octyl phthalate	50.0	49.5	99	4 - 146	
Benzo[b]fluoranthene	50.0	48.2	96	24 - 159	
Benzo[k]fluoranthene	50.0	49.4	99	11 - 162	
Benzo[a]pyrene	50.0	47.8	96	17 - 163	
Indeno[1,2,3-cd]pyrene	50.0	47.8	96	10 - 171	
Dibenz(a,h)anthracene	50.0	48.5	97	10 - 227	
Benzo[g,h,i]perylene	50.0	45.8	92	10 - 219	
3 & 4 Methylphenol	50.0	30.3	61	11 - 150	
Surrogate		% Rec		Acceptance Limits	
2-Fluorophenol		36		10 - 110	
Phenol-d5		28		10 - 110	
Nitrobenzene-d5		72		28 - 110	
2-Fluorobiphenyl		78		31 - 110	
2,4,6-Tribromophenol		97		34 - 116	
Terphenyl-d14		100		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Method Blank - Batch: 500-99309

Lab Sample ID: MB 500-99309/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 0006  
Date Prepared: 11/08/2010 0800

Analysis Batch: 500-99360  
Prep Batch: 500-99309  
Units: mg/L

Method: 200.7 Rev 4.4  
Preparation: 200.7  
Total Recoverable

Instrument ID: ICP5  
Lab File ID: P51108C  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 25 mL

Analyte	Result	Qual	MDL	RL
Arsenic	<0.0050		0.0013	0.0050
Barium	<0.0050		0.00081	0.0050
Cadmium	<0.0010	^	0.00022	0.0010
Chromium	<0.0050		0.00076	0.0050
Copper	<0.0050		0.0013	0.0050
Lead	<0.0025		0.00084	0.0025
Nickel	<0.0050		0.00084	0.0050
Selenium	<0.0050		0.0013	0.0050
Silver	<0.0025		0.00076	0.0025
Iron	<0.10		0.029	0.10
Zinc	0.00355	J ^	0.0022	0.010
Manganese	<0.0050		0.00084	0.0050

### Lab Control Sample - Batch: 500-99309

Lab Sample ID: LCS 500-99309/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 0012  
Date Prepared: 11/08/2010 0800

Analysis Batch: 500-99360  
Prep Batch: 500-99309  
Units: mg/L

Method: 200.7 Rev 4.4  
Preparation: 200.7  
Total Recoverable

Instrument ID: ICP5  
Lab File ID: P51108C  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.0500	0.0488	98	85 - 115	
Barium	1.00	1.00	100	85 - 115	
Cadmium	0.0250	0.0243	97	85 - 115	^
Chromium	0.100	0.0992	99	85 - 115	
Copper	0.125	0.128	102	85 - 115	
Lead	0.0500	0.0499	100	85 - 115	
Nickel	0.250	0.246	98	85 - 115	
Selenium	0.0500	0.0465	93	85 - 115	
Silver	0.0250	0.0228	91	85 - 115	
Iron	0.500	0.512	102	85 - 115	
Zinc	0.250	0.239	96	85 - 115	^
Manganese	0.250	0.260	104	85 - 115	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Matrix Spike - Batch: 500-99309

**Method: 200.7 Rev 4.4**

**Preparation: 200.7**

**Total Recoverable**

Lab Sample ID: 500-29093-1  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 11/10/2010 0037  
 Date Prepared: 11/08/2010 0800

Analysis Batch: 500-99360  
 Prep Batch: 500-99309  
 Units: mg/L

Instrument ID: ICP5  
 Lab File ID: P51108C  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 25 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.0032	J	0.0500	0.0512	96	70 - 130
Barium	0.35		1.00	1.32	97	70 - 130
Cadmium	<0.0010		0.0250	0.0227	91	70 - 130
Chromium	<0.0050		0.100	0.0925	93	70 - 130
Copper	0.0013	J	0.125	0.126	101	70 - 130
Lead	0.0022	J	0.0500	0.0489	93	70 - 130
Nickel	<0.0050		0.250	0.227	91	70 - 130
Selenium	<0.0050		0.0500	0.0351	70	70 - 130
Silver	<0.0025		0.0250	0.0226	90	70 - 130
Iron	4.8		0.500	5.13	69	70 - 130
Zinc	0.0069	J	0.250	0.220	85	70 - 130
Manganese	0.47		0.250	0.699	92	70 - 130

### Duplicate - Batch: 500-99309

**Method: 200.7 Rev 4.4**

**Preparation: 200.7**

**Total Recoverable**

Lab Sample ID: 500-29093-1  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 11/10/2010 0031  
 Date Prepared: 11/08/2010 0800

Analysis Batch: 500-99360  
 Prep Batch: 500-99309  
 Units: mg/L

Instrument ID: ICP5  
 Lab File ID: P51108C  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 25 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	0.0032	J	0.00392	20	20
Barium	0.35		0.369	5	20
Cadmium	<0.0010		<0.0010	NC	20
Chromium	<0.0050		<0.0050	NC	20
Copper	0.0013	J	0.00144	NC	20
Lead	0.0022	J	0.00260	14	20
Nickel	<0.0050		<0.0050	NC	20
Selenium	<0.0050		<0.0050	NC	20
Silver	<0.0025		<0.0025	NC	20
Iron	4.8		5.00	4	20
Zinc	0.0069	J	0.00608	13	20
Manganese	0.47		0.492	5	20

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Method Blank - Batch: 500-99335

Method: 245.1  
Preparation: 245.1

Lab Sample ID: MB 500-99335/1-A

Analysis Batch: 500-99549

Instrument ID: HG5

Client Matrix: Water

Prep Batch: 500-99335

Lab File ID: 111010R.PRN

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 25 mL

Date Analyzed: 11/10/2010 1421

Final Weight/Volume: 25 mL

Date Prepared: 11/08/2010 1541

Analyte	Result	Qual	MDL	RL
Mercury	<0.00020		0.000051	0.00020

### Lab Control Sample - Batch: 500-99335

Method: 245.1  
Preparation: 245.1

Lab Sample ID: LCS 500-99335/2-A

Analysis Batch: 500-99549

Instrument ID: HG5

Client Matrix: Water

Prep Batch: 500-99335

Lab File ID: 111010R.PRN

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 25 mL

Date Analyzed: 11/10/2010 1423

Final Weight/Volume: 25 mL

Date Prepared: 11/08/2010 1541

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00200	0.00192	96	85 - 115	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Method Blank - Batch: 500-99484

Method: 1664A  
Preparation: 1664A

Lab Sample ID: MB 500-99484/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 1540  
Date Prepared: 11/10/2010 0750

Analysis Batch: 500-99485  
Prep Batch: 500-99484  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM (Oil & Grease)	<5.0		1.9	5.0

### Lab Control Sample - Batch: 500-99484

Method: 1664A  
Preparation: 1664A

Lab Sample ID: LCS 500-99484/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 1543  
Date Prepared: 11/10/2010 0807

Analysis Batch: 500-99485  
Prep Batch: 500-99484  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HEM (Oil & Grease)	40.0	35.7	89	78 - 114	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Method Blank - Batch: 500-99401

Method: 420.2

Preparation: Distill/Phenol

Lab Sample ID: MB 500-99401/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 0830  
Date Prepared: 11/09/2010 0900

Analysis Batch: 500-99497  
Prep Batch: 500-99401  
Units: mg/L

Instrument ID: AQ2  
Lab File ID: 2010-11-10-8-47-6.csv  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Phenolics, Total Recoverable	<0.0050		0.0029	0.0050

### Lab Control Sample - Batch: 500-99401

Method: 420.2

Preparation: Distill/Phenol

Lab Sample ID: LCS 500-99401/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 0832  
Date Prepared: 11/09/2010 0900

Analysis Batch: 500-99497  
Prep Batch: 500-99401  
Units: mg/L

Instrument ID: AQ2  
Lab File ID: 2010-11-10-8-47-6.csv  
Initial Weight/Volume: 100 mL  
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.100	0.0923	92	90 - 110	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Method Blank - Batch: 500-99248

**Method:** SM 2540D  
**Preparation:** N/A

Lab Sample ID: MB 500-99248/1

Analysis Batch: 500-99248

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 11/07/2010 1903

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	<5.0		1.0	5.0

### Lab Control Sample - Batch: 500-99248

**Method:** SM 2540D  
**Preparation:** N/A

Lab Sample ID: LCS 500-99248/2

Analysis Batch: 500-99248

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 11/07/2010 1906

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	200	206	103	80 - 120	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

**Method Blank - Batch: 500-99499**

**Method: SM 4500 CN E**  
**Preparation: Distill/CN**

Lab Sample ID: MB 500-99499/1-A

Analysis Batch: 500-99529

Instrument ID: SPEC5

Client Matrix: Water

Prep Batch: 500-99499

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 11/10/2010 1235

Final Weight/Volume: 50 mL

Date Prepared: 11/10/2010 0925

Analyte	Result	Qual	MDL	RL
Cyanide, Total	<0.010		0.0011	0.010

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Lab Control Sample - Batch: 500-99499

**Method: SM 4500 CN E**  
**Preparation: Distill/CN**

Lab Sample ID: LCS 500-99499/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 1236  
Date Prepared: 11/10/2010 0925

Analysis Batch: 500-99529  
Prep Batch: 500-99499  
Units: mg/L

Instrument ID: SPEC5  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.100	0.0946	95	80 - 120	

### Low Level Control Sample - Batch: 500-99499

**Method: SM 4500 CN E**  
**Preparation: Distill/CN**

Lab Sample ID: LLCS 500-99499/4-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 1236  
Date Prepared: 11/10/2010 0925

Analysis Batch: 500-99529  
Prep Batch: 500-99499  
Units: mg/L

Instrument ID: SPEC5  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.0400	0.0397	99	75 - 125	

### High Level Control Sample - Batch: 500-99499

**Method: SM 4500 CN E**  
**Preparation: Distill/CN**

Lab Sample ID: HLCS 500-99499/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 11/10/2010 1237  
Date Prepared: 11/10/2010 0925

Analysis Batch: 500-99529  
Prep Batch: 500-99499  
Units: mg/L

Instrument ID: SPEC5  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.400	0.368	92	90 - 110	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29093-1

### Unseeded Control Blank - Batch: 500-99192

Method: SM 5210B

Preparation: N/A

Lab Sample ID: USB 500-99192/1

Analysis Batch: 500-99192

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 11/05/2010 1155

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

#### Analyte

#### Result

#### Qual

#### MDL

#### RL

Biochemical Oxygen Demand

<2.0

2.0

2.0

### Lab Control Sample - Batch: 500-99192

Method: SM 5210B

Preparation: N/A

Lab Sample ID: LCS 500-99192/2

Analysis Batch: 500-99192

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 11/05/2010 1159

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

#### Analyte

#### Spike Amount

#### Result

#### % Rec.

#### Limit

#### Qual

Biochemical Oxygen Demand

198

198

100

85 - 115

## Login Sample Receipt Check List

Client: Bodine Environmental Services

Job Number: 500-29093-1

Login Number: 29093

List Source: TestAmerica Chicago

Creator: Lunt, Jeff T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.6
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

**APPENDIX C**  
**System Operational Sample Results**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 500-28524-1

Job Description: Jennison Wright

For:

Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Attention: Troy McFate



Approved for release.  
Cindy R Pritchard  
Project Mgmt. Assistant  
10/21/2010 3:15 PM

Designee for  
Richard C Wright  
Project Manager II  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)  
10/21/2010

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:  
TestAmerica Chicago 100201  
TestAmerica West Sacramento CA00044

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.  
TestAmerica Chicago 2417 Bond Street, University Park, IL 60484  
Tel (708) 534-5200 Fax (708) 534-5211 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**500-28524-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**

Method(s) 625: The following sample was diluted due to the abundance of non-target analytes: GWOUA(10132010) (500-28524-1). Elevated reporting limits (RLs) are provided.

Method(s) 625: Due to the level of dilution required for the following sample (500-28534-1 DL), surrogate recoveries are not reported: GWOUA(10132010) (500-28524-1).

No other analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-28524-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>500-28524-1 GWOUA(10132010)</b>					
Phenol	46	J	95	ug/L	625
2-Methylphenol	200		48	ug/L	625
2,4-Dimethylphenol	220		48	ug/L	625
Naphthalene	3600		480	ug/L	625
Acenaphthylene	16	J	48	ug/L	625
Acenaphthene	380		48	ug/L	625
Fluorene	270		48	ug/L	625
Pentachlorophenol	130	J	190	ug/L	625
Phenanthrene	490		48	ug/L	625
Anthracene	61		48	ug/L	625
Dibenzofuran	250		48	ug/L	625
Fluoranthene	210		48	ug/L	625
Pyrene	150		48	ug/L	625
Benzo[a]anthracene	46	J	48	ug/L	625
Chrysene	41	J	48	ug/L	625
Benzo[b]fluoranthene	23	J	48	ug/L	625
Benzo[k]fluoranthene	16	J	48	ug/L	625
Benzo[a]pyrene	22	J	48	ug/L	625
3 & 4 Methylphenol	470		48	ug/L	625
HEM (Oil & Grease)	6.4	B	5.1	mg/L	1664A
<b>500-28524-2 GWOUB(10132010)</b>					
HEM (Oil & Grease)	7.9	B	5.1	mg/L	1664A
Total Suspended Solids	3.5	J	5.0	mg/L	SM 2540D
<b>500-28524-3 GWOUC(10132010)</b>					
HEM (Oil & Grease)	3.6	J B	5.1	mg/L	1664A
Total Suspended Solids	2.5	J	5.0	mg/L	SM 2540D
<b>500-28524-4 GWOUE(10132010)</b>					
2,4-Dimethylphenol	2.2	J	4.7	ug/L	625
Bis(2-ethylhexyl) phthalate	11		9.4	ug/L	625
Total Suspended Solids	1.5	J	5.0	mg/L	SM 2540D

## METHOD SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28524-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Semivolatile Organic Compounds (GC/MS)	TAL CHI	40CFR136A 625	
Liquid-Liquid Extraction	TAL CHI		40CFR136A 625
HEM and SGT-HEM	TAL CHI	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL CHI		1664A 1664A
Solids, Total Suspended (TSS)	TAL CHI	SM SM 2540D	
BOD, 5-Day	TAL CHI	SM SM 5210B	

**Lab References:**

TAL CHI = TestAmerica Chicago

**Method References:**

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

## METHOD / ANALYST SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28524-1

Method	Analyst	Analyst ID
40CFR136A 625	Bergen, Joe	JB
1664A 1664A	Brogan, Mary T	MTB
SM SM 2540D	Boyd, Cheryl L	CLB
SM SM 5210B	Brogan, Mary T	MTB

## SAMPLE SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28524-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-28524-1	GWOUA(10132010)	Water	10/13/2010 1351	10/14/2010 1030
500-28524-2	GWOUB(10132010)	Water	10/13/2010 1340	10/14/2010 1030
500-28524-3	GWOUC(10132010)	Water	10/13/2010 1346	10/14/2010 1030
500-28524-4	GWOUE(10132010)	Water	10/13/2010 1357	10/14/2010 1030

# **SAMPLE RESULTS**

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUA(10132010)  
 Lab Sample ID: 500-28524-1

Date Sampled: 10/13/2010 1351  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 625</b>			Date Analyzed:	10/21/2010 0119	
<b>Prep Method: 625</b>			Date Prepared:	10/15/2010 0925	
N-Nitrosodimethylamine	<95	ug/L	50	95	10
Phenol	46	J ug/L	8.5	95	10
Bis(2-chloroethyl)ether	<48	ug/L	14	48	10
2,2'-oxybis[1-chloropropane]	<48	ug/L	14	48	10
N-Nitrosodi-n-propylamine	<48	ug/L	15	48	10
Hexachloroethane	<48	ug/L	11	48	10
2-Chlorophenol	<48	ug/L	10	48	10
2-Methylphenol	200	ug/L	10	48	10
Nitrobenzene	<48	ug/L	12	48	10
Bis(2-chloroethoxy)methane	<48	ug/L	14	48	10
1,2,4-Trichlorobenzene	<48	ug/L	13	48	10
Isophorone	<48	ug/L	14	48	10
2,4-Dimethylphenol	220	ug/L	16	48	10
Hexachlorobutadiene	<48	ug/L	14	48	10
2,4-Dichlorophenol	<48	ug/L	13	48	10
2,4,6-Trichlorophenol	<48	ug/L	10	48	10
Hexachlorocyclopentadiene	<95	ug/L	12	95	10
2-Chloronaphthalene	<48	ug/L	14	48	10
4-Chloro-3-methylphenol	<48	ug/L	13	48	10
2,6-Dinitrotoluene	<48	ug/L	12	48	10
2-Nitrophenol	<48	ug/L	12	48	10
Dimethyl phthalate	<48	ug/L	11	48	10
2,4-Dinitrophenol	<190	ug/L	77	190	10
Acenaphthylene	16	J ug/L	14	48	10
2,4-Dinitrotoluene	<48	ug/L	14	48	10
Acenaphthene	380	ug/L	14	48	10
4-Nitrophenol	<190	ug/L	34	190	10
Fluorene	270	ug/L	15	48	10
1,2-Diphenylhydrazine	<48	ug/L	13	48	10
4-Bromophenyl phenyl ether	<48	ug/L	14	48	10
Hexachlorobenzene	<48	ug/L	12	48	10
Diethyl phthalate	<48	ug/L	12	48	10
4-Chlorophenyl phenyl ether	<48	ug/L	13	48	10
Pentachlorophenol	130	J ug/L	71	190	10
N-Nitrosodiphenylamine	<48	ug/L	17	48	10
4,6-Dinitro-2-methylphenol	<190	ug/L	48	190	10
Phenanthrene	490	ug/L	13	48	10
Anthracene	61	ug/L	14	48	10
Dibenzofuran	250	ug/L	14	48	10

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUA(10132010)  
 Lab Sample ID: 500-28524-1

Date Sampled: 10/13/2010 1351  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Di-n-butyl phthalate	<48	ug/L	12	48	10
Benzidine	<480	ug/L	95	480	10
Fluoranthene	210	ug/L	13	48	10
Pyrene	150	ug/L	14	48	10
Butyl benzyl phthalate	<48	ug/L	12	48	10
Benzo[a]anthracene	46	J ug/L	11	48	10
Chrysene	41	J ug/L	13	48	10
3,3'-Dichlorobenzidine	<48	ug/L	12	48	10
Bis(2-ethylhexyl) phthalate	<95	ug/L	11	95	10
Di-n-octyl phthalate	<95	ug/L	15	95	10
Benzo[b]fluoranthene	23	J ug/L	11	48	10
Benzo[k]fluoranthene	16	J ug/L	13	48	10
Benzo[a]pyrene	22	J ug/L	11	48	10
Indeno[1,2,3-cd]pyrene	<48	ug/L	13	48	10
Dibenz(a,h)anthracene	<48	ug/L	14	48	10
Benzo[g,h,i]perylene	<48	ug/L	14	48	10
3 & 4 Methylphenol	470	ug/L	13	48	10
Surrogate				Acceptance Limits	
2-Fluorophenol	37	%		10 - 110	
Phenol-d5	26	%		10 - 110	
Nitrobenzene-d5	82	%		28 - 110	
2-Fluorobiphenyl	87	%		31 - 110	
2,4,6-Tribromophenol	106	%		34 - 116	
Terphenyl-d14	101	%		20 - 133	
<b>Method: 625 Run Type: DL</b>			Date Analyzed:	10/21/2010 0141	
<b>Prep Method: 625</b>			Date Prepared:	10/15/2010 0925	
Naphthalene	3600	ug/L	140	480	100
Surrogate				Acceptance Limits	
2-Fluorophenol	0	D	%	10 - 110	
Phenol-d5	0	D	%	10 - 110	
Nitrobenzene-d5	0	D	%	28 - 110	
2-Fluorobiphenyl	0	D	%	31 - 110	
2,4,6-Tribromophenol	0	D	%	34 - 116	
Terphenyl-d14	0	D	%	20 - 133	
<b>Method: 1664A</b>			Date Analyzed:	10/18/2010 1122	
<b>Prep Method: 1664A</b>			Date Prepared:	10/18/2010 0708	
HEM (Oil & Grease)	6.4	B mg/L	1.9	5.1	1.0

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUB(10132010)  
Lab Sample ID: 500-28524-2

Date Sampled: 10/13/2010 1340  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 1664A</b>			Date Analyzed:	10/18/2010 1130	
<b>Prep Method: 1664A</b>			Date Prepared:	10/18/2010 0721	
HEM (Oil & Grease)	7.9	B	mg/L	2.0	5.1
<b>Method: SM 2540D</b>			Date Analyzed:	10/14/2010 2154	
Total Suspended Solids	3.5	J	mg/L	1.0	5.0
					1.0

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUC(10132010)  
Lab Sample ID: 500-28524-3

Date Sampled: 10/13/2010 1346  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 1664A</b>			Date Analyzed:	10/18/2010 1137	
<b>Prep Method: 1664A</b>			Date Prepared:	10/18/2010 0733	
HEM (Oil & Grease)	3.6	J B	mg/L	1.9	5.1
<b>Method: SM 2540D</b>			Date Analyzed:	10/14/2010 2156	
Total Suspended Solids	2.5	J	mg/L	1.0	5.0
					1.0

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUE(10132010)  
 Lab Sample ID: 500-28524-4

Date Sampled: 10/13/2010 1357  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 625</b>			Date Analyzed:	10/21/2010 0056	
<b>Prep Method: 625</b>			Date Prepared:	10/15/2010 0925	
N-Nitrosodimethylamine	<9.4	ug/L	4.9	9.4	1.0
Phenol	<9.4	ug/L	0.84	9.4	1.0
Bis(2-chloroethyl)ether	<4.7	ug/L	1.3	4.7	1.0
2,2'-oxybis[1-chloropropane]	<4.7	ug/L	1.3	4.7	1.0
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.5	4.7	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	1.0	4.7	1.0
2-Methylphenol	<4.7	ug/L	1.0	4.7	1.0
Nitrobenzene	<4.7	ug/L	1.2	4.7	1.0
Bis(2-chloroethoxy)methane	<4.7	ug/L	1.4	4.7	1.0
1,2,4-Trichlorobenzene	<4.7	ug/L	1.3	4.7	1.0
Isophorone	<4.7	ug/L	1.4	4.7	1.0
2,4-Dimethylphenol	2.2	J	1.5	4.7	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	<4.7	ug/L	1.3	4.7	1.0
2,4-Dichlorophenol	<4.7	ug/L	1.3	4.7	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
Hexachlorocyclopentadiene	<9.4	ug/L	1.2	9.4	1.0
2-Chloronaphthalene	<4.7	ug/L	1.3	4.7	1.0
4-Chloro-3-methylphenol	<4.7	ug/L	1.3	4.7	1.0
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	1.0
2-Nitrophenol	<4.7	ug/L	1.2	4.7	1.0
Dimethyl phthalate	<4.7	ug/L	1.1	4.7	1.0
2,4-Dinitrophenol	<19	ug/L	7.6	19	1.0
Acenaphthylene	<4.7	ug/L	1.4	4.7	1.0
2,4-Dinitrotoluene	<4.7	ug/L	1.4	4.7	1.0
Acenaphthene	<4.7	ug/L	1.4	4.7	1.0
4-Nitrophenol	<19	ug/L	3.4	19	1.0
Fluorene	<4.7	ug/L	1.5	4.7	1.0
1,2-Diphenylhydrazine	<4.7	ug/L	1.3	4.7	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<4.7	ug/L	1.2	4.7	1.0
Diethyl phthalate	<4.7	ug/L	1.2	4.7	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
Pentachlorophenol	<19	ug/L	7.1	19	1.0
N-Nitrosodiphenylamine	<4.7	ug/L	1.7	4.7	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrrene	<4.7	ug/L	1.3	4.7	1.0
Anthracene	<4.7	ug/L	1.4	4.7	1.0

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-28524-1

Client Sample ID: GWOUE(10132010)  
 Lab Sample ID: 500-28524-4

Date Sampled: 10/13/2010 1357  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Dibenzofuran	<4.7	ug/L	1.4	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.2	4.7	1.0
Benzidine	<47	ug/L	9.4	47	1.0
Fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Pyrene	<4.7	ug/L	1.3	4.7	1.0
Butyl benzyl phthalate	<4.7	ug/L	1.2	4.7	1.0
Benzo[a]anthracene	<4.7	ug/L	1.1	4.7	1.0
Chrysene	<4.7	ug/L	1.3	4.7	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	11	ug/L	1.0	9.4	1.0
Di-n-octyl phthalate	<9.4	ug/L	1.5	9.4	1.0
Benzo[b]fluoranthene	<4.7	ug/L	1.1	4.7	1.0
Benzo[k]fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Benzo[a]pyrene	<4.7	ug/L	1.1	4.7	1.0
Indeno[1,2,3-cd]pyrene	<4.7	ug/L	1.2	4.7	1.0
Dibenz(a,h)anthracene	<4.7	ug/L	1.4	4.7	1.0
Benzo[g,h,i]perylene	<4.7	ug/L	1.3	4.7	1.0
3 & 4 Methylphenol	<4.7	ug/L	1.2	4.7	1.0
Surrogate				Acceptance Limits	
2-Fluorophenol	36	%		10 - 110	
Phenol-d5	22	%		10 - 110	
Nitrobenzene-d5	72	%		28 - 110	
2-Fluorobiphenyl	70	%		31 - 110	
2,4,6-Tribromophenol	86	%		34 - 116	
Terphenyl-d14	75	%		20 - 133	
Method: SM 2540D			Date Analyzed:	10/14/2010 2158	
Total Suspended Solids	1.5	J	mg/L	1.0	5.0
Method: SM 5210B			Date Analyzed:	10/14/2010 1555	
Biochemical Oxygen Demand	<2.0		mg/L	2.0	2.0
					1.0

## DATA REPORTING QUALIFIERS

Client: Bodine Environmental Services

Job Number: 500-28524-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
GC/MS Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
General Chemistry		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 500-97201</b>					
LCS 500-97201/2-A	Lab Control Sample	T	Water	625	
MB 500-97201/1-A	Method Blank	T	Water	625	
500-28524-1	GWOUA(10132010)	T	Water	625	
500-28524-1DL	GWOUA(10132010)	T	Water	625	
500-28524-4	GWOUE(10132010)	T	Water	625	
<b>Analysis Batch: 500-97664</b>					
LCS 500-97201/2-A	Lab Control Sample	T	Water	625	500-97201
MB 500-97201/1-A	Method Blank	T	Water	625	500-97201
500-28524-1	GWOUA(10132010)	T	Water	625	500-97201
500-28524-1DL	GWOUA(10132010)	T	Water	625	500-97201
500-28524-4	GWOUE(10132010)	T	Water	625	500-97201

#### Report Basis

T = Total

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:500-97144</b>					
LCS 500-97144/2	Lab Control Sample	T	Water	SM 5210B	
USB 500-97144/1	Unseeded Control Blank	T	Water	SM 5210B	
500-28524-4	GWOUE(10132010)	T	Water	SM 5210B	
<b>Analysis Batch:500-97155</b>					
LCS 500-97155/2	Lab Control Sample	T	Water	SM 2540D	
MB 500-97155/1	Method Blank	T	Water	SM 2540D	
500-28524-2	GWOUB(10132010)	T	Water	SM 2540D	
500-28524-3	GWOUC(10132010)	T	Water	SM 2540D	
500-28524-4	GWOUE(10132010)	T	Water	SM 2540D	
<b>Prep Batch: 500-97290</b>					
LCS 500-97290/2-A	Lab Control Sample	T	Water	1664A	
LCSD 500-97290/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 500-97290/1-A	Method Blank	T	Water	1664A	
500-28524-1	GWOUA(10132010)	T	Water	1664A	
500-28524-2	GWOUB(10132010)	T	Water	1664A	
500-28524-3	GWOUC(10132010)	T	Water	1664A	
<b>Analysis Batch:500-97291</b>					
LCS 500-97290/2-A	Lab Control Sample	T	Water	1664A	500-97290
LCSD 500-97290/3-A	Lab Control Sample Duplicate	T	Water	1664A	500-97290
MB 500-97290/1-A	Method Blank	T	Water	1664A	500-97290
500-28524-1	GWOUA(10132010)	T	Water	1664A	500-97290
500-28524-2	GWOUB(10132010)	T	Water	1664A	500-97290
500-28524-3	GWOUC(10132010)	T	Water	1664A	500-97290

Report Basis

T = Total

**Quality Control Results**

Client: Bcdine Environmental Services

Job Number: 500-28524-1

**Surrogate Recovery Report****625 Semivolatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
500-28524-1	GWOUA(10132010)	37	26	82	87	106	101
500-28524-1 DL	GWOUA(10132010) DL	0D	0D	0D	0D	0D	0D
500-28524-4	GWOUE(10132010)	36	22	72	70	86	75
MB 500-97201/1-A		46	29	81	75	75	99
LCS 500-97201/2-A		47	32	81	79	86	97

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	10-110
PHL = Phenol-d5	10-110
NBZ = Nitrobenzene-d5	28-110
FBP = 2-Fluorobiphenyl	31-110
TBP = 2,4,6-Tribromophenol	34-116
TPH = Terphenyl-d14	20-133

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

Method Blank - Batch: 500-97201

Method: 625

Preparation: 625

Lab Sample ID: MB 500-97201/1-A

Analysis Batch: 500-97664

Instrument ID: CMS20

Client Matrix: Water

Prep Batch: 500-97201

Lab File ID: 97201.M.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 1000 mL

Date Analyzed: 10/20/2010 2133

Final Weight/Volume: 1.0 mL

Date Prepared: 10/15/2010 0925

Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
N-Nitrosodimethylamine	<10		5.2	10
Phenol	<10		0.89	10
Bis(2-chloroethyl)ether	<5.0		1.4	5.0
2,2'-oxybis[1-chloropropane]	<5.0		1.4	5.0
N-Nitrosodi-n-propylamine	<5.0		1.6	5.0
Hexachloroethane	<5.0		1.2	5.0
2-Chlorophenol	<5.0		1.1	5.0
2-Methylphenol	<5.0		1.1	5.0
Nitrobenzene	<5.0		1.3	5.0
Bis(2-chloroethoxy)methane	<5.0		1.4	5.0
1,2,4-Trichlorobenzene	<5.0		1.4	5.0
Isophorone	<5.0		1.4	5.0
2,4-Dimethylphenol	<5.0		1.6	5.0
Hexachlorobutadiene	<5.0		1.5	5.0
Naphthalene	<5.0		1.4	5.0
2,4-Dichlorophenol	<5.0		1.3	5.0
2,4,6-Trichlorophenol	<5.0		1.1	5.0
Hexachlorocyclopentadiene	<10		1.3	10
2-Chloronaphthalene	<5.0		1.4	5.0
4-Chloro-3-methylphenol	<5.0		1.4	5.0
2,6-Dinitrotoluene	<5.0		1.3	5.0
2-Nitrophenol	<5.0		1.2	5.0
Dimethyl phthalate	<5.0		1.2	5.0
2,4-Dinitrophenol	<20		8.1	20
Acenaphthylene	<5.0		1.5	5.0
2,4-Dinitrotoluene	<5.0		1.5	5.0
Acenaphthene	<5.0		1.5	5.0
4-Nitrophenol	<20		3.6	20
Fluorene	<5.0		1.6	5.0
1,2-Diphenylhydrazine	<5.0		1.4	5.0
4-Bromophenyl phenyl ether	<5.0		1.4	5.0
Hexachlorobenzene	<5.0		1.3	5.0
Diethyl phthalate	<5.0		1.3	5.0
4-Chlorophenyl phenyl ether	<5.0		1.3	5.0
Pentachlorophenol	<20		7.5	20
N-Nitrosodiphenylamine	<5.0		1.8	5.0
4,6-Dinitro-2-methylphenol	<20		5.0	20
Phenanthrene	<5.0		1.4	5.0
Anthracene	<5.0		1.4	5.0
Dibenzofuran	<5.0		1.5	5.0
Di-n-butyl phthalate	<5.0		1.2	5.0
Benzidine	<50		10	50
Fluoranthene	<5.0		1.4	5.0

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

Method Blank - Batch: 500-97201

Method: 625  
Preparation: 625

Lab Sample ID: MB 500-97201/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/20/2010 2133  
Date Prepared: 10/15/2010 0925

Analysis Batch: 500-97664  
Prep Batch: 500-97201  
Units: ug/L

Instrument ID: CMS20  
Lab File ID: 97201M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Pyrene	<5.0		1.4	5.0
Butyl benzyl phthalate	<5.0		1.3	5.0
Benz[a]anthracene	<5.0		1.1	5.0
Chrysene	<5.0		1.3	5.0
3,3'-Dichlorobenzidine	<5.0		1.3	5.0
Bis(2-ethylhexyl) phthalate	<10		1.1	10
Di-n-octyl phthalate	<10		1.6	10
Benzo[b]fluoranthene	<5.0		1.1	5.0
Benzo[k]fluoranthene	<5.0		1.4	5.0
Benzo[a]pyrene	<5.0		1.2	5.0
Indeno[1,2,3-cd]pyrene	<5.0		1.3	5.0
Dibenz(a,h)anthracene	<5.0		1.4	5.0
Benzo[g,h,i]perylene	<5.0		1.4	5.0
3 & 4 Methylphenol	<5.0		1.3	5.0

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	46	10 - 110
Phenol-d5	29	10 - 110
Nitrobenzene-d5	81	28 - 110
2-Fluorobiphenyl	75	31 - 110
2,4,6-Tribromophenol	75	34 - 116
Terphenyl-d14	99	20 - 133

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

**Lab Control Sample - Batch: 500-97201**

**Method: 625**  
**Preparation: 625**

Lab Sample ID: LCS 500-97201/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/20/2010 2303  
 Date Prepared: 10/15/2010 0925

Analysis Batch: 500-97664  
 Prep Batch: 500-97201  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 97201BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
N-Nitrosodimethylamine	50.0	28.7	57	10 - 200	
Phenol	50.0	18.4	37	5 - 112	
Bis(2-chloroethyl)ether	50.0	44.6	89	12 - 158	
2,2'-oxybis[1-chloropropane]	50.0	38.2	76	36 - 166	
N-Nitrosodi-n-propylamine	50.0	46.8	94	10 - 230	
Hexachloroethane	50.0	29.0	58	40 - 113	
2-Chlorophenol	50.0	38.5	77	23 - 134	
2-Methylphenol	50.0	40.0	80	30 - 146	
Nitrobenzene	50.0	41.3	83	35 - 180	
Bis(2-chloroethoxy)methane	50.0	42.7	85	33 - 184	
1,2,4-Trichlorobenzene	50.0	34.5	69	44 - 142	
Isophorone	50.0	41.5	83	21 - 196	
2,4-Dimethylphenol	50.0	42.4	85	32 - 119	
Hexachlorobutadiene	50.0	32.4	65	24 - 116	
Naphthalene	50.0	37.5	75	21 - 133	
2,4-Dichlorophenol	50.0	42.1	84	39 - 135	
2,4,6-Trichlorophenol	50.0	41.4	83	37 - 144	
Hexachlorocyclopentadiene	50.0	18.5	37	10 - 200	
2-Chloronaphthalene	50.0	39.6	79	60 - 118	
4-Chloro-3-methylphenol	50.0	45.0	90	22 - 147	
2,6-Dinitrotoluene	50.0	49.7	99	50 - 158	
2-Nitrophenol	50.0	41.9	84	29 - 182	
Dimethyl phthalate	50.0	46.0	92	10 - 112	
2,4-Dinitrophenol	50.0	38.5	77	10 - 191	
Acenaphthylene	50.0	42.6	85	33 - 145	
2,4-Dinitrotoluene	50.0	51.0	102	39 - 139	
Acenaphthene	50.0	40.4	81	47 - 145	
4-Nitrophenol	50.0	21.0	42	10 - 132	
Fluorene	50.0	44.4	89	59 - 121	
4-Bromophenyl phenyl ether	50.0	43.7	87	53 - 127	
Hexachlorobenzene	50.0	45.8	92	10 - 152	
Diethyl phthalate	50.0	47.7	95	10 - 114	
4-Chlorophenyl phenyl ether	50.0	43.9	88	25 - 158	
Pentachlorophenol	50.0	42.1	84	14 - 176	
N-Nitrosodiphenylamine	50.0	46.9	94	10 - 200	
4,6-Dinitro-2-methylphenol	50.0	43.6	87	10 - 181	
Phenanthrene	50.0	44.7	89	54 - 120	
Anthracene	50.0	44.0	88	27 - 133	
Dibenzofuran	50.0	42.7	85		
Di-n-butyl phthalate	50.0	48.3	97	1 - 118	
Benzidine	50.0	<50	10	10 - 200	
Fluoranthene	50.0	47.2	94	26 - 137	
Pyrene	50.0	46.8	94	52 - 115	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

**Lab Control Sample - Batch: 500-97201**

**Method: 625**

**Preparation: 625**

Lab Sample ID: LCS 500-97201/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/20/2010 2303  
Date Prepared: 10/15/2010 0925

Analysis Batch: 500-97664  
Prep Batch: 500-97201  
Units: ug/L

Instrument ID: CMS20  
Lab File ID: 97201BS.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Butyl benzyl phthalate	50.0	51.4	103	10 - 152	
Benzo[a]anthracene	50.0	44.8	90	33 - 143	
Chrysene	50.0	44.4	89	17 - 168	
3,3'-Dichlorobenzidine	50.0	43.1	86	10 - 262	
Bis(2-ethylhexyl) phthalate	50.0	50.2	100	8 - 158	
Di-n-octyl phthalate	50.0	44.0	88	4 - 146	
Benzo[b]fluoranthene	50.0	39.5	79	24 - 159	
Benzo[k]fluoranthene	50.0	44.2	88	11 - 162	
Benzo[a]pyrene	50.0	42.3	85	17 - 163	
Indeno[1,2,3-cd]pyrene	50.0	42.3	85	10 - 171	
Dibenz(a,h)anthracene	50.0	43.6	87	10 - 227	
Benzo[g,h,i]perylene	50.0	39.8	80	10 - 219	
3 & 4 Methylphenol	50.0	36.2	72	11 - 150	
Surrogate		% Rec		Acceptance Limits	
2-Fluorophenol		47		10 - 110	
Phenol-d5		32		10 - 110	
Nitrobenzene-d5		81		28 - 110	
2-Fluorobiphenyl		79		31 - 110	
2,4,6-Tribromophenol		86		34 - 116	
Terphenyl-d14		97		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

**Method Blank - Batch: 500-97290**

**Method: 1664A**  
**Preparation: 1664A**

Lab Sample ID: MB 500-97290/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/18/2010 1100  
Date Prepared: 10/18/2010 0630

Analysis Batch: 500-97291  
Prep Batch: 500-97290  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM (Oil & Grease)	2.20	J	1.9	5.0

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 500-97290**

**Method: 1664A**  
**Preparation: 1664A**

LCS Lab Sample ID: LCS 500-97290/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/18/2010 1107  
Date Prepared: 10/18/2010 0642

Analysis Batch: 500-97291  
Prep Batch: 500-97290  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

LCSD Lab Sample ID: LCSD 500-97290/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/18/2010 1115  
Date Prepared: 10/18/2010 0655

Analysis Batch: 500-97291  
Prep Batch: 500-97290  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
HEM (Oil & Grease)	104	104	78 - 114	0	18		

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

**Method Blank - Batch: 500-97155**

**Method: SM 2540D**

**Preparation: N/A**

Lab Sample ID: MB 500-97155/1

Analysis Batch: 500-97155

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 10/14/2010 2135

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	<5.0		1.0	5.0

**Lab Control Sample - Batch: 500-97155**

**Method: SM 2540D**

**Preparation: N/A**

Lab Sample ID: LCS 500-97155/2

Analysis Batch: 500-97155

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 10/14/2010 2137

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	200	188	94	80 - 120	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28524-1

### Unseeded Control Blank - Batch: 500-97144

**Method:** SM 5210B  
**Preparation:** N/A

Lab Sample ID: USB 500-97144/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/14/2010 1550  
Date Prepared: N/A

Analysis Batch: 500-97144  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	MDL	RL
Biochemical Oxygen Demand	<2.0		2.0	2.0

### Lab Control Sample - Batch: 500-97144

**Method:** SM 5210B  
**Preparation:** N/A

Lab Sample ID: LCS 500-97144/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/14/2010 1552  
Date Prepared: N/A

Analysis Batch: 500-97144  
Prep Batch: N/A  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1.0 mL  
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biochemical Oxygen Demand	198	198	100	85 - 115	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To	(optional)	Bill To	(optional)
Contact:		Contact:	
Company:		Company:	
Address:		Address:	
Address:		Address:	
Phone:		Phone:	
Fax:		Fax:	
E-Mail:		PON/Reference#	

## Chain of Custody Record

Lab Job #: 500-28524

Chain of Custody Number:

Page \_\_\_\_\_ of \_\_\_\_\_

Temperature °C of Cooler: 3.7

3.7

Lab ID	MS/MSO	Sample ID	Sampling		# of Containers	Media	Preservative	8	2	8	8										Preservative Key
			Date	Time				TSS	OIL & GREASE	TSS & BOOS	SVOCs										1. HCl, Cool to 4°
1		GWOA(L_10132010)	10/13/10	151	4	mL	X	X		X											1. HCl, Cool to 4°
2		GWOOB(L_10132010)	10/13/10	140	2		X	X													2. H2SO4, Cool to 4°
3		GWOUC(L_10132010)	10/13/10	146	2		X	X													3. HNO3, Cool to 4°
4		GWOUE(L_10132010)	10/13/10	151	3	v				X	X										4. NaOH, Cool to 4°
																					5. NaOH/Zn, Cool to 4°
																					6. NaHSO4
																					7. Cool to 4°
																					8. None
																					9. Other
																					Comments
																					INFILTRATE POST OIL/H2O SEPARATE
																					Post INF. OAG FILTERS
																					EFFLUENT

### Turnaround Time Required (Business Days)

1 Day    2 Days    5 Days    7 Days    10 Days    15 Days    Other  
                   

### Sample Disposal

Return to Client     Disposal by Lab     Archive for \_\_\_\_\_ Months    (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
<i>Rich Evey</i>		10/13/10	4:30P-07	<i>JL</i>		10/14/10	1030	
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped

Matrix Key	Client Comments		Lab Comments:
WW - Wastewater	SE - Sediment		
W - Water	SO - Soil		
S - Soil	L - Leachate		
SL - Sludge	WI - Wipe		
MS - Miscellaneous	DW - Drinking Water		
OL - Oil	O - Other		
A - Air			

## Login Sample Receipt Check List

Client: Bodine Environmental Services

Job Number: 500-28524-1

Login Number: 28524

List Source: TestAmerica Chicago

Creator: Lunt, Jeff T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.7
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 500-29581-1

Job Description: Jennison Wright

For:

Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Attention: Troy McFate



Approved for release.  
Richard C Wright  
Project Manager II  
12/8/2010 2:30 PM

Richard C Wright  
Project Manager II  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)  
12/08/2010

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:  
TestAmerica Chicago 100201  
TestAmerica West Sacramento CA00044

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.  
TestAmerica Chicago 2417 Bond Street, University Park, IL 60484  
Tel (708) 534-5200 Fax (708) 534-5211 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**500-29581-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**

Method(s) 625: The following samples was diluted due to the abundance of target and non-target analytes: GWOUA (11302010) (500-29581-1). Elevated reporting limits (RLs) are provided.

Method(s) 625: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: GWOUA (11302010) (500-29581-1).

Method(s) 625: 500-29581 had 2,4,6-Tribromophenol at 124% (34%-116%). All other surrogates were within limits. No further action was required. GWOUA (11302010) (500-29581-1)

No other analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-29581-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>500-29581-1 GWOUA (11302010)</b>					
Phenol	57		47	ug/L	625
2-Methylphenol	310		23	ug/L	625
2,4-Dimethylphenol	360		23	ug/L	625
Naphthalene	5100		470	ug/L	625
Acenaphthylene	22	J	23	ug/L	625
Acenaphthene	510		120	ug/L	625
Fluorene	380		120	ug/L	625
Pentachlorophenol	180		93	ug/L	625
Phenanthrene	770		120	ug/L	625
Anthracene	95		23	ug/L	625
Dibenzofuran	340		23	ug/L	625
Fluoranthene	320		23	ug/L	625
Pyrene	220		23	ug/L	625
Benzo[a]anthracene	65		23	ug/L	625
Chrysene	56		23	ug/L	625
Benzo[b]fluoranthene	42		23	ug/L	625
Benzo[k]fluoranthene	18	J	23	ug/L	625
Benzo[a]pyrene	34		23	ug/L	625
Indeno[1,2,3-cd]pyrene	14	J	23	ug/L	625
Benzo[g,h,i]perylene	15	J	23	ug/L	625
3 & 4 Methylphenol	640		120	ug/L	625
HEM (Oil & Grease)	4.9	J	5.1	mg/L	1664A
<b>500-29581-2 GWOUB (11302010)</b>					
HEM (Oil & Grease)	65		5.1	mg/L	1664A
Total Suspended Solids	150		10	mg/L	SM 2540D
<b>500-29581-3 GWOUC (11302010)</b>					
HEM (Oil & Grease)	74		5.1	mg/L	1664A
Total Suspended Solids	10		5.0	mg/L	SM 2540D
<b>500-29581-4 GWOUE (11302010)</b>					
2-Methylphenol	4.1	J	4.7	ug/L	625
2,4-Dimethylphenol	9.4		4.7	ug/L	625
Naphthalene	3.1	J	4.7	ug/L	625
Acenaphthene	5.7		4.7	ug/L	625
3 & 4 Methylphenol	1.2	J	4.7	ug/L	625
Total Suspended Solids	9.5		5.0	mg/L	SM 2540D

## METHOD SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29581-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Semivolatile Organic Compounds (GC/MS)	TAL CHI	40CFR136A 625	
Liquid-Liquid Extraction	TAL CHI		40CFR136A 625
HEM and SGT-HEM	TAL CHI	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL CHI		1664A 1664A
Solids, Total Suspended (TSS)	TAL CHI	SM SM 2540D	
BOD, 5-Day	TAL CHI	SM SM 5210B	

### Lab References:

TAL CHI = TestAmerica Chicago

### Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

## METHOD / ANALYST SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29581-1

Method	Analyst	Analyst ID
40CFR136A 625	Akcakal, Duran	DA
1664A 1664A	Brogan, Mary T	MTB
SM SM 2540D	Boyd, Cheryl L	CLB
SM SM 5210B	Brogan, Mary T	MTB

## SAMPLE SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29581-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-29581-1	GWOUA (11302010)	Water	11/30/2010 1015	12/01/2010 0940
500-29581-2	GWOUB (11302010)	Water	11/30/2010 1022	12/01/2010 0940
500-29581-3	GWOUC (11302010)	Water	11/30/2010 1035	12/01/2010 0940
500-29581-4	GWOUE (11302010)	Water	11/30/2010 1042	12/01/2010 0940

# **SAMPLE RESULTS**

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUA (11302010)  
 Lab Sample ID: 500-29581-1

Date Sampled: 11/30/2010 1015  
 Date Received: 12/01/2010 0940  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 625</b>			Date Analyzed:	12/04/2010 0305	
<b>Prep Method: 625</b>			Date Prepared:	12/02/2010 0700	
N-Nitrosodimethylamine	<47	ug/L	24	47	5.0
Phenol	57	ug/L	4.2	47	5.0
Bis(2-chloroethyl)ether	<23	ug/L	6.6	23	5.0
2,2'-oxybis[1-chloropropane]	<23	ug/L	6.7	23	5.0
N-Nitrosodi-n-propylamine	<23	ug/L	7.2	23	5.0
Hexachloroethane	<23	ug/L	5.5	23	5.0
2-Chlorophenol	<23	ug/L	5.0	23	5.0
2-Methylphenol	310	ug/L	5.1	23	5.0
Nitrobenzene	<23	ug/L	6.1	23	5.0
Bis(2-chloroethoxy)methane	<23	ug/L	6.7	23	5.0
1,2,4-Trichlorobenzene	<23	ug/L	6.4	23	5.0
Isophorone	<23	ug/L	6.8	23	5.0
2,4-Dimethylphenol	360	ug/L	7.6	23	5.0
Hexachlorobutadiene	<23	ug/L	7.0	23	5.0
2,4-Dichlorophenol	<23	ug/L	6.3	23	5.0
2,4,6-Trichlorophenol	<23	ug/L	5.1	23	5.0
Hexachlorocyclopentadiene	<47	ug/L	5.9	47	5.0
2-Chloronaphthalene	<23	ug/L	6.7	23	5.0
4-Chloro-3-methylphenol	<23	ug/L	6.5	23	5.0
2,6-Dinitrotoluene	<23	ug/L	6.1	23	5.0
2-Nitrophenol	<23	ug/L	5.7	23	5.0
Dimethyl phthalate	<23	ug/L	5.4	23	5.0
2,4-Dinitrophenol	<93	ug/L	38	93	5.0
Acenaphthylene	22	J ug/L	6.9	23	5.0
2,4-Dinitrotoluene	<23	ug/L	7.0	23	5.0
4-Nitrophenol	<93	ug/L	17	93	5.0
1,2-Diphenylhydrazine	<23	ug/L	6.4	23	5.0
4-Bromophenyl phenyl ether	<23	ug/L	6.6	23	5.0
Hexachlorobenzene	<23	ug/L	6.1	23	5.0
Diethyl phthalate	<23	ug/L	5.9	23	5.0
4-Chlorophenyl phenyl ether	<23	ug/L	6.2	23	5.0
Pentachlorophenol	180	ug/L	35	93	5.0
N-Nitrosodiphenylamine	<23	ug/L	8.3	23	5.0
4,6-Dinitro-2-methylphenol	<93	ug/L	23	93	5.0
Anthracene	95	ug/L	6.7	23	5.0
Dibenzofuran	340	ug/L	6.8	23	5.0
Di-n-butyl phthalate	<23	ug/L	5.7	23	5.0
Benzidine	<230	ug/L	47	230	5.0
Fluoranthene	320	ug/L	6.5	23	5.0

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUA (11302010)  
 Lab Sample ID: 500-29581-1

Date Sampled: 11/30/2010 1015  
 Date Received: 12/01/2010 0940  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Pyrene	220	ug/L	6.7	23	5.0
Butyl benzyl phthalate	<23	ug/L	5.9	23	5.0
Benzo[a]anthracene	65	ug/L	5.3	23	5.0
Chrysene	56	ug/L	6.2	23	5.0
3,3'-Dichlorobenzidine	<23	ug/L	6.1	23	5.0
Bis(2-ethylhexyl) phthalate	<47	ug/L	5.2	47	5.0
Di-n-octyl phthalate	<47	ug/L	7.5	47	5.0
Benzo[b]fluoranthene	42	ug/L	5.3	23	5.0
Benzo[k]fluoranthene	18	J ug/L	6.4	23	5.0
Benzo[a]pyrene	34	ug/L	5.6	23	5.0
Indeno[1,2,3-cd]pyrene	14	J ug/L	6.2	23	5.0
Dibenz(a,h)anthracene	<23	ug/L	6.8	23	5.0
Benzo[g,h,i]perylene	15	J ug/L	6.6	23	5.0

Surrogate	Acceptance Limits		
2-Fluorophenol	48	%	10 - 110
Phenol-d5	31	%	10 - 110
Nitrobenzene-d5	97	%	28 - 110
2-Fluorobiphenyl	104	%	31 - 110
2,4,6-Tribromophenol	124	X %	34 - 116
Terphenyl-d14	114	%	20 - 133

**Method: 625 Run Type: DL**  
**Prep Method: 625**

Date Analyzed: 12/06/2010 1755  
 Date Prepared: 12/02/2010 0700

Acenaphthene	510	ug/L	35	120	25
Fluorene	380	ug/L	37	120	25
Phenanthrene	770	ug/L	32	120	25
3 & 4 Methylphenol	640	ug/L	31	120	25

Surrogate	Acceptance Limits		
2-Fluorophenol	0	D %	10 - 110
Phenol-d5	0	D %	10 - 110
Nitrobenzene-d5	0	D %	28 - 110
2-Fluorobiphenyl	0	D %	31 - 110
2,4,6-Tribromophenol	0	D %	34 - 116
Terphenyl-d14	0	D %	20 - 133

**Method: 625 Run Type: DL2**  
**Prep Method: 625**

Date Analyzed: 12/06/2010 1819  
 Date Prepared: 12/02/2010 0700

Naphthalene	5100	ug/L	130	470	100
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Surrogate	Acceptance Limits		
2-Fluorophenol	0	D %	10 - 110

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUA (11302010)  
Lab Sample ID: 500-29581-1

Date Sampled: 11/30/2010 1015  
Date Received: 12/01/2010 0940  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Surrogate	Acceptance Limits				
Phenol-d5	0	D	%	10 - 110	
Nitrobenzene-d5	0	D	%	28 - 110	
2-Fluorobiphenyl	0	D	%	31 - 110	
2,4,6-Tribromophenol	0	D	%	34 - 116	
Terphenyl-d14	0	D	%	20 - 133	
<b>Method: 1664A</b>			Date Analyzed:	12/06/2010 1515	
<b>Prep Method: 1664A</b>			Date Prepared:	12/06/2010 1003	
HEM (Oil & Grease)	4.9	J	mg/L	1.8	5.1
					1.0

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUB (11302010)  
Lab Sample ID: 500-29581-2

Date Sampled: 11/30/2010 1022  
Date Received: 12/01/2010 0940  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 1664A			Date Analyzed:	12/06/2010 1520	
Prep Method: 1664A			Date Prepared:	12/06/2010 1020	
HEM (Oil & Grease)	65	mg/L	1.8	5.1	1.0
Method: SM 2540D			Date Analyzed:	12/02/2010 0008	
Total Suspended Solids	150	mg/L	2.0	10	1.0

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUC (11302010)  
Lab Sample ID: 500-29581-3

Date Sampled: 11/30/2010 1035  
Date Received: 12/01/2010 0940  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 1664A</b>			Date Analyzed:	12/06/2010 1525	
<b>Prep Method: 1664A</b>			Date Prepared:	12/06/2010 1037	
HEM (Oil & Grease)	74	mg/L	1.8	5.1	1.0
<b>Method: SM 2540D</b>			Date Analyzed:	12/02/2010 0012	
Total Suspended Solids	10	mg/L	1.0	5.0	1.0

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOUE (11302010)  
 Lab Sample ID: 500-29581-4

Date Sampled: 11/30/2010 1042  
 Date Received: 12/01/2010 0940  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 625</b>			Date Analyzed: 12/04/2010 0214		
<b>Prep Method: 625</b>			Date Prepared: 12/02/2010 0700		
N-Nitrosodimethylamine	<9.3	ug/L	4.9	9.3	1.0
Phenol	<9.3	ug/L	0.83	9.3	1.0
Bis(2-chloroethyl)ether	<4.7	ug/L	1.3	4.7	1.0
2,2'-oxybis[1-chloropropane]	<4.7	ug/L	1.3	4.7	1.0
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	0.99	4.7	1.0
2-Methylphenol	4.1 J	ug/L	1.0	4.7	1.0
Nitrobenzene	<4.7	ug/L	1.2	4.7	1.0
Bis(2-chloroethoxy)methane	<4.7	ug/L	1.3	4.7	1.0
1,2,4-Trichlorobenzene	<4.7	ug/L	1.3	4.7	1.0
Isophorone	<4.7	ug/L	1.4	4.7	1.0
2,4-Dimethylphenol	9.4	ug/L	1.5	4.7	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	3.1 J	ug/L	1.3	4.7	1.0
2,4-Dichlorophenol	<4.7	ug/L	1.3	4.7	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
Hexachlorocyclopentadiene	<9.3	ug/L	1.2	9.3	1.0
2-Chloronaphthalene	<4.7	ug/L	1.3	4.7	1.0
4-Chloro-3-methylphenol	<4.7	ug/L	1.3	4.7	1.0
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	1.0
2-Nitrophenol	<4.7	ug/L	1.1	4.7	1.0
Dimethyl phthalate	<4.7	ug/L	1.1	4.7	1.0
2,4-Dinitrophenol	<19	ug/L	7.6	19	1.0
Acenaphthylene	<4.7	ug/L	1.4	4.7	1.0
2,4-Dinitrotoluene	<4.7	ug/L	1.4	4.7	1.0
Acenaphthene	5.7	ug/L	1.4	4.7	1.0
4-Nitrophenol	<19	ug/L	3.4	19	1.0
Fluorene	<4.7	ug/L	1.5	4.7	1.0
1,2-Diphenylhydrazine	<4.7	ug/L	1.3	4.7	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<4.7	ug/L	1.2	4.7	1.0
Diethyl phthalate	<4.7	ug/L	1.2	4.7	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
Pentachlorophenol	<19	ug/L	7.0	19	1.0
N-Nitrosodiphenylamine	<4.7	ug/L	1.7	4.7	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrene	<4.7	ug/L	1.3	4.7	1.0
Anthracene	<4.7	ug/L	1.3	4.7	1.0

Troy McFate  
 Bodine Environmental Services  
 5350 East Firehouse Road  
 Decatur, IL 62521-9601

Job Number: 500-29581-1

Client Sample ID: GWOU (11302010)  
 Lab Sample ID: 500-29581-4

Date Sampled: 11/30/2010 1042  
 Date Received: 12/01/2010 0940  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Dibenzofuran	<4.7	ug/L	1.4	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<47	ug/L	9.3	47	1.0
Fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Pyrene	<4.7	ug/L	1.3	4.7	1.0
Butyl benzyl phthalate	<4.7	ug/L	1.2	4.7	1.0
Benzo[a]anthracene	<4.7	ug/L	1.1	4.7	1.0
Chrysene	<4.7	ug/L	1.2	4.7	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	<9.3	ug/L	1.0	9.3	1.0
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0
Benzo[b]fluoranthene	<4.7	ug/L	1.1	4.7	1.0
Benzo[k]fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Benzo[a]pyrene	<4.7	ug/L	1.1	4.7	1.0
Indeno[1,2,3-cd]pyrene	<4.7	ug/L	1.2	4.7	1.0
Dibenz(a,h)anthracene	<4.7	ug/L	1.4	4.7	1.0
Benzo[g,h,i]perylene	<4.7	ug/L	1.3	4.7	1.0
3 & 4 Methylphenol	1.2	J	ug/L	1.2	4.7
Surrogate					Acceptance Limits
2-Fluorophenol	34	%			10 - 110
Phenol-d5	21	%			10 - 110
Nitrobenzene-d5	57	%			28 - 110
2-Fluorobiphenyl	66	%			31 - 110
2,4,6-Tribromophenol	99	%			34 - 116
Terphenyl-d14	94	%			20 - 133
Method: SM 2540D			Date Analyzed:	12/02/2010 0016	
Total Suspended Solids	9.5	mg/L	1.0	5.0	1.0
Method: SM 5210B			Date Analyzed:	12/01/2010 1502	
Biochemical Oxygen Demand	<2.0	mg/L	2.0	2.0	1.0

## DATA REPORTING QUALIFIERS

Client: Bodine Environmental Services

Job Number: 500-29581-1

Lab Section	Qualifier	Description
GC/MS Semi VOA	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
General Chemistry	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 500-101096</b>					
LCS 500-101096/2-A	Lab Control Sample	T	Water	625	
LCSD 500-101096/3-A	Lab Control Sample Duplicate	T	Water	625	
MB 500-101096/1-A	Method Blank	T	Water	625	
500-29581-1	GWOUA (11302010)	T	Water	625	
500-29581-1DL	GWOUA (11302010)	T	Water	625	
500-29581-1DL2	GWOUA (11302010)	T	Water	625	
500-29581-4	GWOUE (11302010)	T	Water	625	
<b>Analysis Batch:500-101221</b>					
LCS 500-101096/2-A	Lab Control Sample	T	Water	625	500-101096
LCSD 500-101096/3-A	Lab Control Sample Duplicate	T	Water	625	500-101096
MB 500-101096/1-A	Method Blank	T	Water	625	500-101096
500-29581-1	GWOUA (11302010)	T	Water	625	500-101096
500-29581-4	GWOUE (11302010)	T	Water	625	500-101096
<b>Analysis Batch:500-101459</b>					
500-29581-1DL	GWOUA (11302010)	T	Water	625	500-101096
500-29581-1DL2	GWOUA (11302010)	T	Water	625	500-101096

#### Report Basis

T = Total

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:500-101001</b>					
LCS 500-101001/2	Lab Control Sample	T	Water	SM 5210B	
USB 500-101001/1	Unseeded Control Blank	T	Water	SM 5210B	
500-29581-4	GWOUE (11302010)	T	Water	SM 5210B	
<b>Analysis Batch:500-101090</b>					
LCS 500-101090/2	Lab Control Sample	T	Water	SM 2540D	
MB 500-101090/1	Method Blank	T	Water	SM 2540D	
500-29581-2	GWOUB (11302010)	T	Water	SM 2540D	
500-29581-3	GWOUC (11302010)	T	Water	SM 2540D	
500-29581-4	GWOUE (11302010)	T	Water	SM 2540D	
<b>Prep Batch: 500-101237</b>					
LCS 500-101237/2-A	Lab Control Sample	T	Water	1664A	
MB 500-101237/1-A	Method Blank	T	Water	1664A	
500-29581-1	GWOUA (11302010)	T	Water	1664A	
500-29581-2	GWOUB (11302010)	T	Water	1664A	
500-29581-3	GWOUC (11302010)	T	Water	1664A	
<b>Analysis Batch:500-101240</b>					
LCS 500-101237/2-A	Lab Control Sample	T	Water	1664A	500-101237
MB 500-101237/1-A	Method Blank	T	Water	1664A	500-101237
500-29581-1	GWOUA (11302010)	T	Water	1664A	500-101237
500-29581-2	GWOUB (11302010)	T	Water	1664A	500-101237
500-29581-3	GWOUC (11302010)	T	Water	1664A	500-101237

#### Report Basis

T = Total

# Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

## Surrogate Recovery Report

### 625 Semivolatile Organic Compounds (GC/MS)

#### Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
500-29581-1	GWOUA (11302010)	48	31	97	104	124X	114
500-29581-1 DL	GWOUA (11302010) DL	0D	0D	0D	0D	0D	0D
500-29581-1 DL2	GWOUA (11302010) DL2	0D	0D	0D	0D	0D	0D
500-29581-4	GWOUE (11302010)	34	21	57	66	99	94
MB 500-101096/1-A		42	26	65	68	79	88
LCS 500-101096/2-A		42	28	78	81	95	87
LCSD 500-101096/3-A		45	32	80	82	98	101

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	10-110
PHL = Phenol-d5	10-110
NBZ = Nitrobenzene-d5	28-110
FBP = 2-Fluorobiphenyl	31-110
TBP = 2,4,6-Tribromophenol	34-116
TPH = Terphenyl-d14	20-133

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

Method Blank - Batch: 500-101096

Method: 625

Preparation: 625

Lab Sample ID: MB 500-101096/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/03/2010 2047  
Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
Prep Batch: 500-101096  
Units: ug/L

Instrument ID: CMS01  
Lab File ID: 101096M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
N-Nitrosodimethylamine	<10		5.2	10
Phenol	<10		0.89	10
Bis(2-chloroethyl)ether	<5.0		1.4	5.0
2,2'-oxybis[1-chloropropane]	<5.0		1.4	5.0
N-Nitrosodi-n-propylamine	<5.0		1.6	5.0
Hexachloroethane	<5.0		1.2	5.0
2-Chlorophenol	<5.0		1.1	5.0
2-Methylphenol	<5.0		1.1	5.0
Nitrobenzene	<5.0		1.3	5.0
Bis(2-chloroethoxy)methane	<5.0		1.4	5.0
1,2,4-Trichlorobenzene	<5.0		1.4	5.0
Isophorone	<5.0		1.4	5.0
2,4-Dimethylphenol	<5.0		1.6	5.0
Hexachlorobutadiene	<5.0		1.5	5.0
Naphthalene	<5.0		1.4	5.0
2,4-Dichlorophenol	<5.0		1.3	5.0
2,4,6-Trichlorophenol	<5.0		1.1	5.0
Hexachlorocyclopentadiene	<10		1.3	10
2-Chloronaphthalene	<5.0		1.4	5.0
4-Chloro-3-methylphenol	<5.0		1.4	5.0
2,6-Dinitrotoluene	<5.0		1.3	5.0
2-Nitrophenol	<5.0		1.2	5.0
Dimethyl phthalate	<5.0		1.2	5.0
2,4-Dinitrophenol	<20		8.1	20
Acenaphthylene	<5.0		1.5	5.0
2,4-Dinitrotoluene	<5.0		1.5	5.0
Acenaphthene	<5.0		1.5	5.0
4-Nitrophenol	<20		3.6	20
Fluorene	<5.0		1.6	5.0
1,2-Diphenylhydrazine	<5.0		1.4	5.0
4-Bromophenyl phenyl ether	<5.0		1.4	5.0
Hexachlorobenzene	<5.0		1.3	5.0
Diethyl phthalate	<5.0		1.3	5.0
4-Chlorophenyl phenyl ether	<5.0		1.3	5.0
Pentachlorophenol	<20		7.5	20
N-Nitrosodiphenylamine	<5.0		1.8	5.0
4,6-Dinitro-2-methylphenol	<20		5.0	20
Phenanthrene	<5.0		1.4	5.0
Anthracene	<5.0		1.4	5.0
Dibenzofuran	<5.0		1.5	5.0
Di-n-butyl phthalate	<5.0		1.2	5.0
Benzidine	<50		10	50
Fluoranthene	<5.0		1.4	5.0

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

**Method Blank - Batch: 500-101096**

**Method: 625**  
**Preparation: 625**

Lab Sample ID: MB 500-101096/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/03/2010 2047  
Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
Prep Batch: 500-101096  
Units: ug/L

Instrument ID: CMS01  
Lab File ID: 101096M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Pyrene	<5.0		1.4	5.0
Butyl benzyl phthalate	<5.0		1.3	5.0
Benzo[a]anthracene	<5.0		1.1	5.0
Chrysene	<5.0		1.3	5.0
3,3'-Dichlorobenzidine	<5.0		1.3	5.0
Bis(2-ethylhexyl) phthalate	<10		1.1	10
Di-n-octyl phthalate	<10		1.6	10
Benzo[b]fluoranthene	<5.0		1.1	5.0
Benzo[k]fluoranthene	<5.0		1.4	5.0
Benzo[a]pyrene	<5.0		1.2	5.0
Indeno[1,2,3-cd]pyrene	<5.0		1.3	5.0
Dibenz(a,h)anthracene	<5.0		1.4	5.0
Benzo[g,h,i]perylene	<5.0		1.4	5.0
3 & 4 Methylphenol	<5.0		1.3	5.0
Surrogate	% Rec		Acceptance Limits	
2-Fluorophenol	42		10 - 110	
Phenol-d5	26		10 - 110	
Nitrobenzene-d5	65		28 - 110	
2-Fluorobiphenyl	68		31 - 110	
2,4,6-Tribromophenol	79		34 - 116	
Terphenyl-d14	88		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### **Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 500-101096**

**Method: 625**

**Preparation: 625**

LCS Lab Sample ID: LCS 500-101096/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 2203  
 Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
 Prep Batch: 500-101096  
 Units: ug/L

Instrument ID: CMS01  
 Lab File ID: 101096BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

LCSD Lab Sample ID: LCSD 500-101096/3-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 2228  
 Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
 Prep Batch: 500-101096  
 Units: ug/L

Instrument ID: CMS01  
 Lab File ID: 101096BD.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
N-Nitrosodimethylamine	55	59	10 - 200	7	20	
Phenol	31	35	5 - 112	14	20	
Bis(2-chloroethyl)ether	77	85	12 - 158	10	20	
2,2'-oxybis[1-chloropropane]	73	79	36 - 166	7	20	
N-Nitrosodi-n-propylamine	78	90	10 - 230	15	20	
Hexachloroethane	64	71	40 - 113	11	20	
2-Chlorophenol	70	77	23 - 134	10	20	
2-Methylphenol	64	75	30 - 146	16	20	
Nitrobenzene	80	84	35 - 180	5	20	
Bis(2-chloroethoxy)methane	80	88	33 - 184	9	20	
1,2,4-Trichlorobenzene	71	76	44 - 142	6	20	
Isophorone	73	82	21 - 196	12	20	
2,4-Dimethylphenol	78	87	32 - 119	10	20	
Hexachlorobutadiene	70	74	24 - 116	5	20	
Naphthalene	72	78	21 - 133	8	20	
2,4-Dichlorophenol	77	88	39 - 135	14	20	
2,4,6-Trichlorophenol	86	93	37 - 144	7	20	
Hexachlorocyclopentadiene	73	73	10 - 200	0	20	
2-Chloronaphthalene	81	86	60 - 118	5	20	
4-Chloro-3-methylphenol	77	92	22 - 147	18	20	
2,6-Dinitrotoluene	104	109	50 - 158	5	20	
2-Nitrophenol	83	89	29 - 182	7	20	
Dimethyl phthalate	90	96	10 - 112	6	20	
2,4-Dinitrophenol	106	115	10 - 191	8	20	
Acenaphthylene	83	88	33 - 145	6	20	
2,4-Dinitrotoluene	104	110	39 - 139	6	20	
Acenaphthene	86	90	47 - 145	5	20	
4-Nitrophenol	39	42	10 - 132	7	20	J
Fluorene	87	90	59 - 121	4	20	
4-Bromophenyl phenyl ether	91	92	53 - 127	1	20	
Hexachlorobenzene	91	93	10 - 152	3	20	
Diethyl phthalate	90	95	10 - 114	5	20	
4-Chlorophenyl phenyl ether	87	94	25 - 158	8	20	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 500-101096**

**Method: 625  
Preparation: 625**

LCS Lab Sample ID: LCS 500-101096/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 2203  
 Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
 Prep Batch: 500-101096  
 Units: ug/L

Instrument ID: CMS01  
 Lab File ID: 101096BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

LCSD Lab Sample ID: LCSD 500-101096/3-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 2228  
 Date Prepared: 12/02/2010 0700

Analysis Batch: 500-101221  
 Prep Batch: 500-101096  
 Units: ug/L

Instrument ID: CMS01  
 Lab File ID: 101096BD.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Pentachlorophenol	100	104	14 - 176	4	20	
N-Nitrosodiphenylamine	96	98	10 - 200	3	20	
4,6-Dinitro-2-methylphenol	104	112	10 - 181	8	20	
Phenanthrene	94	94	54 - 120	0	20	
Anthracene	92	94	27 - 133	2	20	
Dibenzofuran	85	90		6		
Di-n-butyl phthalate	96	101	1 - 118	5	20	
Benzidine	10	12	10 - 200	11	20	
Fluoranthene	101	100	26 - 137	1	20	
Pyrene	87	106	52 - 115	20	20	
Butyl benzyl phthalate	95	105	10 - 152	10	20	
Benzo[a]anthracene	92	94	33 - 143	2	20	
Chrysene	92	94	17 - 168	3	20	
3,3'-Dichlorobenzidine	89	88	10 - 262	1	20	
Bis(2-ethylhexyl) phthalate	95	101	8 - 158	7	20	
Di-n-octyl phthalate	90	101	4 - 146	11	20	
Benzo[b]fluoranthene	80	87	24 - 159	9	20	
Benzo[k]fluoranthene	90	95	11 - 162	6	20	
Benzo[a]pyrene	87	93	17 - 163	7	20	
Indeno[1,2,3-cd]pyrene	102	106	10 - 171	4	20	
Dibenz(a,h)anthracene	99	103	10 - 227	4	20	
Benzo[g,h,i]perylene	99	104	10 - 219	5	20	
3 & 4 Methylphenol	61	75	11 - 150	20	20	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
2-Fluorophenol	42		45		10 - 110	
Phenol-d5	28		32		10 - 110	
Nitrobenzene-d5	78		80		28 - 110	
2-Fluorobiphenyl	81		82		31 - 110	
2,4,6-Tribromophenol	95		98		34 - 116	
Terphenyl-d14	87		101		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### Method Blank - Batch: 500-101237

Lab Sample ID: MB 500-101237/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/06/2010 1430  
Date Prepared: 12/06/2010 0732

Analysis Batch: 500-101240  
Prep Batch: 500-101237  
Units: mg/L

Method: 1664A  
Preparation: 1664A

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM (Oil & Grease)	<5.0		1.8	5.0

### Lab Control Sample - Batch: 500-101237

Method: 1664A  
Preparation: 1664A

Lab Sample ID: LCS 500-101237/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/06/2010 1435  
Date Prepared: 12/06/2010 0748

Analysis Batch: 500-101240  
Prep Batch: 500-101237  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HEM (Oil & Grease)	40.0	35.4	89	78 - 114	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### Method Blank - Batch: 500-101090

Method: SM 2540D

Preparation: N/A

Lab Sample ID: MB 500-101090/1

Analysis Batch: 500-101090

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 12/01/2010 2321

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	<5.0		1.0	5.0

### Lab Control Sample - Batch: 500-101090

Method: SM 2540D

Preparation: N/A

Lab Sample ID: LCS 500-101090/2

Analysis Batch: 500-101090

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 12/01/2010 2324

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	200	194	97	80 - 120	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29581-1

### Unseeded Control Blank - Batch: 500-101001

Method: SM 5210B

Preparation: N/A

Lab Sample ID: USB 500-101001/1

Analysis Batch: 500-101001

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 12/01/2010 0815

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Biochemical Oxygen Demand	<2.0		2.0	2.0

### Lab Control Sample - Batch: 500-101001

Method: SM 5210B

Preparation: N/A

Lab Sample ID: LCS 500-101001/2

Analysis Batch: 500-101001

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 12/01/2010 0817

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biochemical Oxygen Demand	198	191	96	85 - 115	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To	(optional)	
Contact:		
Company:		
Address:		
Address:		
Phone:		
Fax:		
E-Mail:		

Bill To	(optional)	
Contact:		
Company:		
Address:		
Address:		
Phone:		
Fax:		
POL# Reference#		

## Chain of Custody Record

Lab Job #: 500-29581

Chain of Custody Number: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

2.0

Temperature °C of Cooler: \_\_\_\_\_

Lab ID	Sample ID	Sampling		# of Containers	Paramter	Preservative	8	2	8	8									Preservative Key
		Date	Time																
1	GW01A (11302010)	11/30/10	1015	3	WW	X				R									Influent
2	GW01B (11302010)	11/30/10	1022	2	WW	X	X												Post oil/grease separator
3	GW01C (11302010)	11/30/10	1035	2	WW	X	X												Post INF. GAS FILTER
4	GW01E (11302010)	11/30/10	1042	3	WW				R	R									Effluent

Turnaround Time Required (Business Days)

1 Day    2 Days    5 Days    10 Days    15 Days    Other

Sample Disposal

Return to Client     Disposal by Lab     Archive for \_\_\_\_\_ Months    (A fee may be assessed if samples are retained longer than 1 month)

Requested Due Date \_\_\_\_\_

Requisitioned By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
BRETT RAKER	600-NET	11/30/10	1103	Santa	TestAmerica	12/1/10	0940	
Requisitioned By	Company	Date	Time	Received By	Company	Date	Time	Shipped

Matrix Key	Client Comments		Lab Comments:
WW - Wastewater	S - Sediment		
W - Water	SO - Soil		
S - Soil	L - Leachate		
SL - Sludge	WI - Wipe		
MS - Miscellaneous	DW - Drinking Water		
OI - Oil	O - Other		
A - Air			

## Login Sample Receipt Check List

Client: Bodine Environmental Services

Job Number: 500-29581-1

Login Number: 29581

List Source: TestAmerica Chicago

Creator: Kelsey, Shawn M

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

Job Number: 500-29861-1

Job Description: Jennison Wright

For:

Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Attention: Troy McFate



Approved for release.  
Richard C Wright  
Project Manager II  
12/22/2010 11:16 AM

Richard C Wright  
Project Manager II  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)  
12/22/2010

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:  
TestAmerica Chicago 100201  
TestAmerica West Sacramento CA00044

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.  
TestAmerica Chicago 2417 Bond Street, University Park, IL 60484  
Tel (708) 534-5200 Fax (708) 534-5211 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative  
500-29861-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method(s) 624: The laboratory control sample (LCS) for batch 102155 exceeded control limits for the following analyte: 2-Chloroethylvinyl ether. The compound 2-Chloroethylvinyl ether is degraded in the presence of acid in preserved samples. This compound can also be degraded in instrumentation that have run acid preserved samples. The instrument on which these samples were run was such a case, and therefore 2-Chloroethylvinyl ether was degraded in the quality control samples required to report these samples. Results for 2-Chloroethyl vinyl ether are not available due to acid degradation.

Method(s) 624: The following sample(s) was diluted due to the abundance of non-target analytes: GWOUA (12142010) (500-29861-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**

Method(s) 625: Due to the level of dilution required for the following secondary dilution, surrogate recoveries are not reported: GWOUA (12142010) (500-29861-2).

Method(s) 625: The laboratory control sample (LCS) for batch 101978 exceeded control limits for the following non-controlled analyte: Benzidine. No corrective action was required. GWOUA (12142010) (500-29861-2), GWOUE (12142010) (500-29861-4)

Method(s) 625: The following sample was diluted due to the abundance of target and non-target analytes: GWOUA (12142010) (500-29861-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-29861-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>500-29861-1 GWOUB (12142010)</b>					
HEM (Oil & Grease)	170		5.1	mg/L	1664A
Total Suspended Solids	170		10	mg/L	SM 2540D
<b>500-29861-2 GWOUA (12142010)</b>					
Benzene	40	J	50	ug/L	624
Toluene	74		50	ug/L	624
Ethylbenzene	90		50	ug/L	624
Phenol	54	J	100	ug/L	625
2-Methylphenol	310		50	ug/L	625
2,4-Dimethylphenol	350		50	ug/L	625
Naphthalene	5400		500	ug/L	625
Acenaphthylene	22	J	50	ug/L	625
Acenaphthene	570		50	ug/L	625
Fluorene	450		50	ug/L	625
Pentachlorophenol	160	J	200	ug/L	625
Phenanthrene	1200		500	ug/L	625
Anthracene	130		50	ug/L	625
Dibenzofuran	390		50	ug/L	625
Fluoranthene	450		50	ug/L	625
Pyrene	290		50	ug/L	625
Benzo[a]anthracene	96		50	ug/L	625
Chrysene	79		50	ug/L	625
Benzo[b]fluoranthene	58		50	ug/L	625
Benzo[k]fluoranthene	28	J	50	ug/L	625
Benzo[a]pyrene	49	J	50	ug/L	625
Indeno[1,2,3-cd]pyrene	20	J	50	ug/L	625
Benzo[g,h,i]perylene	23	J	50	ug/L	625
3 & 4 Methylphenol	640		50	ug/L	625
HEM (Oil & Grease)	8.5		5.1	mg/L	1664A
<b>500-29861-4 GWOU (12142010)</b>					
Phenol	2.8	J	9.3	ug/L	625
2-Methylphenol	22		4.7	ug/L	625
2,4-Dimethylphenol	21		4.7	ug/L	625
Acenaphthene	2.5	J	4.7	ug/L	625
3 & 4 Methylphenol	21		4.7	ug/L	625
HEM (Oil & Grease)	2.0	J	5.1	mg/L	1664A
Total Suspended Solids	3.0	J	5.0	mg/L	SM 2540D
Biochemical Oxygen Demand	4.8		2.0	mg/L	SM 5210B

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-29861-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-29861-5	GWOUC (12142010)				
HEM (Oil & Grease)		5.9	5.1	mg/L	1664A
Total Suspended Solids		34	5.0	mg/L	SM 2540D

## METHOD SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29861-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds (GC/MS)	TAL CHI	40CFR136A 624	
Semivolatile Organic Compounds (GC/MS) Liquid-Liquid Extraction	TAL CHI	40CFR136A 625	40CFR136A 625
HEM and SGT-HEM HEM and SGT-HEM (SPE)	TAL CHI	1664A 1664A	1664A 1664A
Solids, Total Suspended (TSS)	TAL CHI	SM SM 2540D	
BOD, 5-Day	TAL CHI	SM SM 5210B	

**Lab References:**

TAL CHI = TestAmerica Chicago

**Method References:**

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

## METHOD / ANALYST SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29861-1

Method	Analyst	Analyst ID
40CFR136A 624	Alikpala, Elaine	EA
40CFR136A 625	Bergen, Joe	JB
1664A 1664A	Brogan, Mary T	MTB
SM SM 2540D	Boyd, Cheryl L	CLB
SM SM 5210B	Brogan, Mary T	MTB

## SAMPLE SUMMARY

Client: Bodine Environmental Services

Job Number: 500-29861-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-29861-1	GWOUB (12142010)	Water	12/14/2010 1106	12/15/2010 1030
500-29861-2	GWOUA (12142010)	Water	12/14/2010 1121	12/15/2010 1030
500-29861-3	GWOUD (12142010)	Water	12/14/2010 1125	12/15/2010 1030
500-29861-4	GWOUE (12142010)	Water	12/14/2010 1131	12/15/2010 1030
500-29861-5	GWOUC (12142010)	Water	12/14/2010 1145	12/15/2010 1030

# **SAMPLE RESULTS**

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-29861-1

Client Sample ID: GWOUB (12142010)  
Lab Sample ID: 500-29861-1

Date Sampled: 12/14/2010 1106  
Date Received: 12/15/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 1664A</b>			Date Analyzed:	12/17/2010 1225	
<b>Prep Method: 1664A</b>			Date Prepared:	12/17/2010 0802	
HEM (Oil & Grease)	170	mg/L	1.9	5.1	1.0
<b>Method: SM 2540D</b>			Date Analyzed:	12/16/2010 1901	
Total Suspended Solids	170	mg/L	2.0	10	1.0

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Job Number: 500-29861-1

Client Sample ID: GWOUA (12142010)  
 Lab Sample ID: 500-29861-2

Date Sampled: 12/14/2010 1121  
 Date Received: 12/15/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 624</b>			Date Analyzed:	12/17/2010 1533	
Chloromethane	<100	ug/L	8.8	100	10
Vinyl chloride	<100	ug/L	11	100	10
Bromomethane	<100	ug/L	9.9	100	10
Chloroethane	<100	ug/L	16	100	10
Acrolein	<2000	ug/L	360	2000	10
1,1-Dichloroethene	<50	ug/L	10	50	10
Methylene Chloride	<50	ug/L	10	50	10
trans-1,2-Dichloroethene	<50	ug/L	6.1	50	10
Acrylonitrile	<400	ug/L	60	400	10
1,1-Dichloroethane	<50	ug/L	4.5	50	10
Chloroform	<50	ug/L	6.1	50	10
1,1,1-Trichloroethane	<50	ug/L	7.6	50	10
Carbon tetrachloride	<50	ug/L	7.4	50	10
Benzene	40	J	8.4	50	10
1,2-Dichloroethane	<50	ug/L	6.5	50	10
Trichloroethene	<50	ug/L	7.3	50	10
1,2-Dichloropropane	<50	ug/L	8.2	50	10
Bromodichloromethane	<50	ug/L	5.9	50	10
2-Chloroethyl vinyl ether	<100	ug/L	35	100	10
Toluene	74	ug/L	6.0	50	10
1,1,2-Trichloroethane	<50	ug/L	10	50	10
Tetrachloroethene	<50	ug/L	6.1	50	10
Dibromochloromethane	<50	ug/L	11	50	10
Chlorobenzene	<50	ug/L	6.1	50	10
Ethylbenzene	90	ug/L	7.3	50	10
Bromoform	<50	ug/L	8.4	50	10
1,1,2,2-Tetrachloroethane	<50	ug/L	7.7	50	10
1,2-Dichlorobenzene	<50	ug/L	8.1	50	10
1,3-Dichlorobenzene	<50	ug/L	6.6	50	10
1,4-Dichlorobenzene	<50	ug/L	6.4	50	10
1,3-Dichloropropene, Total	<50	ug/L	7.4	50	10
Surrogate				Acceptance Limits	
Toluene-d8 (Surr)	94	%		79 - 120	
4-Bromofluorobenzene (Surr)	94	%		72 - 120	
1,2-Dichloroethane-d4 (Surr)	94	%		80 - 120	
<b>Method: 625</b>			Date Analyzed:	12/17/2010 2142	
<b>Prep Method: 625</b>			Date Prepared:	12/15/2010 1723	
N-Nitrosodimethylamine	<100	ug/L	52	100	10
Phenol	54	J	8.9	100	10

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Job Number: 500-29861-1

Client Sample ID: GWOUA (12142010)  
 Lab Sample ID: 500-29861-2

Date Sampled: 12/14/2010 1121  
 Date Received: 12/15/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Bis(2-chloroethyl)ether	<50	ug/L	14	50	10
2,2'-oxybis[1-chloropropane]	<50	ug/L	14	50	10
N-Nitrosodi-n-propylamine	<50	ug/L	16	50	10
Hexachloroethane	<50	ug/L	12	50	10
2-Chlorophenol	<50	ug/L	11	50	10
2-Methylphenol	310	ug/L	11	50	10
Nitrobenzene	<50	ug/L	13	50	10
Bis(2-chloroethoxy)methane	<50	ug/L	14	50	10
1,2,4-Trichlorobenzene	<50	ug/L	14	50	10
Isophorone	<50	ug/L	14	50	10
2,4-Dimethylphenol	350	ug/L	16	50	10
Hexachlorobutadiene	<50	ug/L	15	50	10
2,4-Dichlorophenol	<50	ug/L	13	50	10
2,4,6-Trichlorophenol	<50	ug/L	11	50	10
Hexachlorocyclopentadiene	<100	ug/L	13	100	10
2-Chloronaphthalene	<50	ug/L	14	50	10
4-Chloro-3-methylphenol	<50	ug/L	14	50	10
2,6-Dinitrotoluene	<50	ug/L	13	50	10
2-Nitrophenol	<50	ug/L	12	50	10
Dimethyl phthalate	<50	ug/L	12	50	10
2,4-Dinitrophenol	<200	ug/L	81	200	10
Acenaphthylene	22	J	15	50	10
2,4-Dinitrotoluene	<50	ug/L	15	50	10
Acenaphthene	570	ug/L	15	50	10
4-Nitrophenol	<200	ug/L	36	200	10
Fluorene	450	ug/L	16	50	10
1,2-Diphenylhydrazine	<50	ug/L	14	50	10
4-Bromophenyl phenyl ether	<50	ug/L	14	50	10
Hexachlorobenzene	<50	ug/L	13	50	10
Diethyl phthalate	<50	ug/L	13	50	10
4-Chlorophenyl phenyl ether	<50	ug/L	13	50	10
Pentachlorophenol	160	J	75	200	10
N-Nitrosodiphenylamine	<50	ug/L	18	50	10
4,6-Dinitro-2-methylphenol	<200	ug/L	50	200	10
Anthracene	130	ug/L	14	50	10
Dibenzofuran	390	ug/L	15	50	10
Di-n-butyl phthalate	<50	ug/L	12	50	10
Benzidine	<500	*	100	500	10
Fluoranthene	450	ug/L	14	50	10
Pyrene	290	ug/L	14	50	10
Butyl benzyl phthalate	<50	ug/L	13	50	10

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Job Number: 500-29861-1

Client Sample ID: GWOUA (12142010)  
 Lab Sample ID: 500-29861-2

Date Sampled: 12/14/2010 1121  
 Date Received: 12/15/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution	
Benzo[a]anthracene	96	ug/L	11	50	10	
Chrysene	79	ug/L	13	50	10	
3,3'-Dichlorobenzidine	<50	ug/L	13	50	10	
Bis(2-ethylhexyl) phthalate	<100	ug/L	11	100	10	
Di-n-octyl phthalate	<100	ug/L	16	100	10	
Benzo[b]fluoranthene	58	ug/L	11	50	10	
Benzo[k]fluoranthene	28	J	ug/L	14	50	10
Benzo[a]pyrene	49	J	ug/L	12	50	10
Indeno[1,2,3-cd]pyrene	20	J	ug/L	13	50	10
Dibenz(a,h)anthracene	<50	ug/L	14	50	10	
Benzo[g,h,i]perylene	23	J	ug/L	14	50	10
3 & 4 Methylphenol	640	ug/L	13	50	10	
Surrogate				Acceptance Limits		
2-Fluorophenol	44	%		10 - 110		
Phenol-d5	32	%		10 - 110		
Nitrobenzene-d5	77	%		28 - 110		
2-Fluorobiphenyl	90	%		31 - 110		
2,4,6-Tribromophenol	118	X	%	34 - 116		
Terphenyl-d14	110		%	20 - 133		
<b>Method: 625 Run Type: DL</b>				Date Analyzed:	12/21/2010 0049	
<b>Prep Method: 625</b>				Date Prepared:	12/15/2010 1723	
Naphthalene	5400	ug/L	140	500	100	
Phenanthrene	1200	ug/L	140	500	100	
Surrogate				Acceptance Limits		
2-Fluorophenol	0	D	%	10 - 110		
Phenol-d5	0	D	%	10 - 110		
Nitrobenzene-d5	0	D	%	28 - 110		
2-Fluorobiphenyl	0	D	%	31 - 110		
2,4,6-Tribromophenol	0	D	%	34 - 116		
Terphenyl-d14	0	D	%	20 - 133		
<b>Method: 1664A</b>				Date Analyzed:	12/17/2010 1229	
<b>Prep Method: 1664A</b>				Date Prepared:	12/17/2010 0817	
HEM (Oil & Grease)	8.5	mg/L	1.8	5.1	1.0	

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Job Number: 500-29861-1

Client Sample ID: GWOUD (12142010)  
Lab Sample ID: 500-29861-3

Date Sampled: 12/14/2010 1125  
Date Received: 12/15/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 1664A			Date Analyzed:	12/17/2010 1233	
Prep Method: 1664A			Date Prepared:	12/17/2010 0832	
HEM (Oil & Grease)	<5.2	mg/L	1.9	5.2	1.0

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Job Number: 500-29861-1

Client Sample ID: GWOUE (12142010)  
 Lab Sample ID: 500-29861-4

Date Sampled: 12/14/2010 1131  
 Date Received: 12/15/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 625</b>			Date Analyzed:	12/21/2010 0115	
<b>Prep Method: 625</b>			Date Prepared:	12/15/2010 1723	
N-Nitrosodimethylamine	<9.3	ug/L	4.9	9.3	1.0
Phenol	2.8	J ug/L	0.83	9.3	1.0
Bis(2-chloroethyl)ether	<4.7	ug/L	1.3	4.7	1.0
2,2'-oxybis[1-chloropropane]	<4.7	ug/L	1.3	4.7	1.0
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	0.99	4.7	1.0
2-Methylphenol	22	ug/L	1.0	4.7	1.0
Nitrobenzene	<4.7	ug/L	1.2	4.7	1.0
Bis(2-chloroethoxy)methane	<4.7	ug/L	1.3	4.7	1.0
1,2,4-Trichlorobenzene	<4.7	ug/L	1.3	4.7	1.0
Isophorone	<4.7	ug/L	1.4	4.7	1.0
2,4-Dimethylphenol	21	ug/L	1.5	4.7	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	<4.7	ug/L	1.3	4.7	1.0
2,4-Dichlorophenol	<4.7	ug/L	1.3	4.7	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
Hexachlorocyclopentadiene	<9.3	ug/L	1.2	9.3	1.0
2-Chloronaphthalene	<4.7	ug/L	1.3	4.7	1.0
4-Chloro-3-methylphenol	<4.7	ug/L	1.3	4.7	1.0
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	1.0
2-Nitrophenol	<4.7	ug/L	1.1	4.7	1.0
Dimethyl phthalate	<4.7	ug/L	1.1	4.7	1.0
2,4-Dinitrophenol	<19	ug/L	7.6	19	1.0
Acenaphthylene	<4.7	ug/L	1.4	4.7	1.0
2,4-Dinitrotoluene	<4.7	ug/L	1.4	4.7	1.0
Acenaphthene	2.5	J ug/L	1.4	4.7	1.0
4-Nitrophenol	<19	ug/L	3.4	19	1.0
Fluorene	<4.7	ug/L	1.5	4.7	1.0
1,2-Diphenylhydrazine	<4.7	ug/L	1.3	4.7	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<4.7	ug/L	1.2	4.7	1.0
Diethyl phthalate	<4.7	ug/L	1.2	4.7	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
Pentachlorophenol	<19	ug/L	7.0	19	1.0
N-Nitrosodiphenylamine	<4.7	ug/L	1.7	4.7	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrene	<4.7	ug/L	1.3	4.7	1.0
Anthracene	<4.7	ug/L	1.3	4.7	1.0

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Job Number: 500-29861-1

Client Sample ID: GWOUE (12142010)  
 Lab Sample ID: 500-29861-4

Date Sampled: 12/14/2010 1131  
 Date Received: 12/15/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Dibenzofuran	<4.7	ug/L	1.4	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<47 *	ug/L	9.3	47	1.0
Fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Pyrene	<4.7	ug/L	1.3	4.7	1.0
Butyl benzyl phthalate	<4.7	ug/L	1.2	4.7	1.0
Benzo[a]anthracene	<4.7	ug/L	1.1	4.7	1.0
Chrysene	<4.7	ug/L	1.2	4.7	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	<9.3	ug/L	1.0	9.3	1.0
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0
Benzo[b]fluoranthene	<4.7	ug/L	1.1	4.7	1.0
Benzo[k]fluoranthene	<4.7	ug/L	1.3	4.7	1.0
Benzo[a]pyrene	<4.7	ug/L	1.1	4.7	1.0
Indeno[1,2,3-cd]pyrene	<4.7	ug/L	1.2	4.7	1.0
Dibenz(a,h)anthracene	<4.7	ug/L	1.4	4.7	1.0
Benzo[g,h,i]perylene	<4.7	ug/L	1.3	4.7	1.0
3 & 4 Methylphenol	21	ug/L	1.2	4.7	1.0
<b>Surrogate</b>					
2-Fluorophenol	36	%		10 - 110	
Phenol-d5	24	%		10 - 110	
Nitrobenzene-d5	66	%		28 - 110	
2-Fluorobiphenyl	70	%		31 - 110	
2,4,6-Tribromophenol	116	%		34 - 116	
Terphenyl-d14	99	%		20 - 133	
<b>Method: 1664A</b>					
<b>Prep Method: 1664A</b>					
HEM (Oil & Grease)	2.0	J	mg/L	1.8	5.1
<b>Method: SM 2540D</b>					
Total Suspended Solids	3.0	J	mg/L	1.0	5.0
<b>Method: SM 5210B</b>					
Biochemical Oxygen Demand	4.8		mg/L	2.0	2.0
<b>Acceptance Limits</b>					
Date Analyzed: 12/17/2010 1237					
Date Prepared: 12/17/2010 0848					
Date Analyzed: 12/16/2010 1904					
Date Analyzed: 12/15/2010 1621					

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Decatur, IL 62521-9601

Job Number: 500-29861-1

Client Sample ID: GWOUC (12142010)  
Lab Sample ID: 500-29861-5

Date Sampled: 12/14/2010 1145  
Date Received: 12/15/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 1664A			Date Analyzed:	12/17/2010 1241	
Prep Method: 1664A			Date Prepared:	12/17/2010 0903	
HEM (Oil & Grease)	5.9	mg/L	1.8	5.1	1.0
Method: SM 2540D			Date Analyzed:	12/16/2010 1907	
Total Suspended Solids	34	mg/L	1.0	5.0	1.0

## DATA REPORTING QUALIFIERS

Client: Bodine Environmental Services

Job Number: 500-29861-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
GC/MS VOA	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
General Chemistry	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:500-102155</b>					
LCS 500-102155/4	Lab Control Sample	T	Water	624	
MB 500-102155/3	Method Blank	T	Water	624	
500-29861-2	GWOUA (12142010)	T	Water	624	

Report Basis

T = Total

### GC/MS Semi VOA

Prep Batch: 500-101978					
LCS 500-101978/2-A	Lab Control Sample	T	Water	625	
MB 500-101978/1-A	Method Blank	T	Water	625	
500-29861-2	GWOUA (12142010)	T	Water	625	
500-29861-2DL	GWOUA (12142010)	T	Water	625	
500-29861-4	GWOUE (12142010)	T	Water	625	
<b>Analysis Batch:500-102141</b>					
500-29861-2	GWOUA (12142010)	T	Water	625	500-101978
<b>Analysis Batch:500-102244</b>					
LCS 500-101978/2-A	Lab Control Sample	T	Water	625	500-101978
MB 500-101978/1-A	Method Blank	T	Water	625	500-101978
500-29861-2DL	GWOUA (12142010)	T	Water	625	500-101978
500-29861-4	GWOUE (12142010)	T	Water	625	500-101978

Report Basis

T = Total

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:500-101908</b>					
LCS 500-101908/2	Lab Control Sample	T	Water	SM 5210B	
USB 500-101908/1	Unseeded Control Blank	T	Water	SM 5210B	
500-29861-4	GWOUE (12142010)	T	Water	SM 5210B	
<b>Prep Batch: 500-102070</b>					
LCS 500-102070/2-A	Lab Control Sample	T	Water	1664A	
MB 500-102070/1-A	Method Blank	T	Water	1664A	
500-29861-1	GWOUB (12142010)	T	Water	1664A	
500-29861-2	GWOUA (12142010)	T	Water	1664A	
500-29861-3	GWOUD (12142010)	T	Water	1664A	
500-29861-4	GWOUE (12142010)	T	Water	1664A	
500-29861-5	GWOUC (12142010)	T	Water	1664A	
<b>Analysis Batch:500-102071</b>					
LCS 500-102070/2-A	Lab Control Sample	T	Water	1664A	500-102070
MB 500-102070/1-A	Method Blank	T	Water	1664A	500-102070
500-29861-1	GWOUB (12142010)	T	Water	1664A	500-102070
500-29861-2	GWOUA (12142010)	T	Water	1664A	500-102070
500-29861-3	GWOUD (12142010)	T	Water	1664A	500-102070
500-29861-4	GWOUE (12142010)	T	Water	1664A	500-102070
500-29861-5	GWOUC (12142010)	T	Water	1664A	500-102070
<b>Analysis Batch:500-102077</b>					
LCS 500-102077/2	Lab Control Sample	T	Water	SM 2540D	
MB 500-102077/1	Method Blank	T	Water	SM 2540D	
500-29861-1	GWOUB (12142010)	T	Water	SM 2540D	
500-29861-4	GWOUE (12142010)	T	Water	SM 2540D	
500-29861-5	GWOUC (12142010)	T	Water	SM 2540D	

#### Report Basis

T = Total

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

### Surrogate Recovery Report

#### 624 Volatile Organic Compounds (GC/MS)

##### Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	BFB %Rec	DCA %Rec
500-29861-2	GWOUA (12142010)	94	94	94
MB 500-102155/3		99	94	99
LCS 500-102155/4		97	97	88

Surrogate	Acceptance Limits
TOL = Toluene-d8 (Surr)	79-120
BFB = 4-Bromofluorobenzene (Surr)	72-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120

# Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

## Surrogate Recovery Report

### 625 Semivolatile Organic Compounds (GC/MS)

#### Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
500-29861-2	GWOUA (12142010)	44	32	77	90	118X	110
500-29861-2 DL	GWOUA (12142010) DL	0D	0D	0D	0D	0D	0D
500-29861-4	GWOUE (12142010)	36	24	66	70	116	99
MB 500-101978/1-A		36	23	68	66	93	97
LCS 500-101978/2-A		39	29	65	74	111	116

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	10-110
PHL = Phenol-d5	10-110
NBZ = Nitrobenzene-d5	28-110
FBP = 2-Fluorobiphenyl	31-110
TBP = 2,4,6-Tribromophenol	34-116
TPH = Terphenyl-d14	20-133

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

Method Blank - Batch: 500-102155

Method: 624

Preparation: N/A

Lab Sample ID: MB 500-102155/3

Analysis Batch: 500-102155

Instrument ID: MS19

Client Matrix: Water

Prep Batch: N/A

Lab File ID: 19M1217.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 5 mL

Date Analyzed: 12/17/2010 1244

Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Chloromethane	<10		0.88	10
Vinyl chloride	<10		1.1	10
Bromomethane	<10		0.99	10
Chloroethane	<10		1.6	10
Acrolein	<200		36	200
1,1-Dichloroethene	<5.0		1.0	5.0
Methylene Chloride	<5.0		1.0	5.0
trans-1,2-Dichloroethene	<5.0		0.61	5.0
Acrylonitrile	<40		6.0	40
1,1-Dichloroethane	<5.0		0.45	5.0
Chloroform	<5.0		0.61	5.0
1,1,1-Trichloroethane	<5.0		0.76	5.0
Carbon tetrachloride	<5.0		0.74	5.0
Benzene	<5.0		0.84	5.0
1,2-Dichloroethane	<5.0		0.65	5.0
Trichloroethene	<5.0		0.73	5.0
1,2-Dichloropropane	<5.0		0.82	5.0
Bromodichloromethane	<5.0		0.59	5.0
2-Chloroethyl vinyl ether	<10		3.5	10
cis-1,3-Dichloropropene	<5.0		0.70	5.0
Toluene	<5.0		0.60	5.0
trans-1,3-Dichloropropene	<5.0		0.74	5.0
1,1,2-Trichloroethane	<5.0		1.0	5.0
Tetrachloroethene	<5.0		0.61	5.0
Dibromochloromethane	<5.0		1.1	5.0
Chlorobenzene	<5.0		0.61	5.0
Ethylbenzene	<5.0		0.73	5.0
Bromoform	<5.0		0.84	5.0
1,1,2,2-Tetrachloroethane	<5.0		0.77	5.0
1,2-Dichlorobenzene	<5.0		0.81	5.0
1,3-Dichlorobenzene	<5.0		0.66	5.0
1,4-Dichlorobenzene	<5.0		0.64	5.0
1,3-Dichloropropene, Total	<5.0		0.74	5.0
Surrogate		% Rec	Acceptance Limits	
Toluene-d8 (Surr)	99		79 - 120	
4-Bromofluorobenzene (Surr)	94		72 - 120	
1,2-Dichloroethane-d4 (Surr)	99		80 - 120	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

**Lab Control Sample - Batch: 500-102155**

**Method: 624**

**Preparation: N/A**

Lab Sample ID: LCS 500-102155/4

Analysis Batch: 500-102155

Instrument ID: MS19

Client Matrix: Water

Prep Batch: N/A

Lab File ID: 19S1217.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 5 mL

Date Analyzed: 12/17/2010 1309

Final Weight/Volume: 5 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloromethane	20.0	18.0	90	10 - 273	
Vinyl chloride	20.0	17.9	90	10 - 251	
Bromomethane	20.0	18.1	90	10 - 242	
Chloroethane	20.0	18.3	92	14 - 230	
1,1-Dichloroethene	20.0	15.1	76	10 - 234	
Methylene Chloride	20.0	17.6	88	10 - 221	
trans-1,2-Dichloroethene	20.0	15.8	79	54 - 156	
1,1-Dichloroethane	20.0	14.4	72	59 - 155	
Chloroform	20.0	15.6	78	51 - 138	
1,1,1-Trichloroethane	20.0	15.5	78	52 - 162	
Carbon tetrachloride	20.0	15.9	80	70 - 140	
Benzene	20.0	15.4	77	37 - 151	
1,2-Dichloroethane	20.0	15.7	78	49 - 155	
Trichloroethene	20.0	18.2	91	71 - 157	
1,2-Dichloropropane	20.0	15.8	79	10 - 210	
Bromodichloromethane	20.0	16.9	85	35 - 155	
2-Chloroethyl vinyl ether	20.0	6.11	31	10 - 305	J
cis-1,3-Dichloropropene	21.5	16.8	78	10 - 227	
Toluene	20.0	17.6	88	47 - 150	
trans-1,3-Dichloropropene	19.4	16.1	83	17 - 183	
1,1,2-Trichloroethane	20.0	17.0	85	52 - 150	
Tetrachloroethene	20.0	19.7	98	64 - 148	
Dibromochloromethane	20.0	18.2	91	53 - 149	
Chlorobenzene	20.0	18.2	91	37 - 160	
Ethylbenzene	20.0	18.5	92	37 - 162	
Bromoform	20.0	19.0	95	45 - 169	
1,1,2,2-Tetrachloroethane	20.0	18.1	91	46 - 157	
1,2-Dichlorobenzene	20.0	21.2	106	18 - 190	
1,3-Dichlorobenzene	20.0	21.1	105	59 - 156	
1,4-Dichlorobenzene	20.0	20.7	103	18 - 190	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	97	79 - 120
4-Bromofluorobenzene (Surr)	97	72 - 120
1,2-Dichloroethane-d4 (Surr)	88	80 - 120

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

**Method Blank - Batch: 500-101978****Method: 625**  
**Preparation: 625**

Lab Sample ID: MB 500-101978/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/20/2010 1505  
Date Prepared: 12/15/2010 1723

Analysis Batch: 500-102244  
Prep Batch: 500-101978  
Units: ug/L

Instrument ID: CMS01  
Lab File ID: 101975.M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
N-Nitrosodimethylamine	<10		5.2	10
Phenol	<10		0.89	10
Bis(2-chloroethyl)ether	<5.0		1.4	5.0
2,2'-oxybis[1-chloropropane]	<5.0		1.4	5.0
N-Nitrosodi-n-propylamine	<5.0		1.6	5.0
Hexachloroethane	<5.0		1.2	5.0
2-Chlorophenol	<5.0		1.1	5.0
2-Methylphenol	<5.0		1.1	5.0
Nitrobenzene	<5.0		1.3	5.0
Bis(2-chloroethoxy)methane	<5.0		1.4	5.0
1,2,4-Trichlorobenzene	<5.0		1.4	5.0
Isophorone	<5.0		1.4	5.0
2,4-Dimethylphenol	<5.0		1.6	5.0
Hexachlorobutadiene	<5.0		1.5	5.0
Naphthalene	<5.0		1.4	5.0
2,4-Dichlorophenol	<5.0		1.3	5.0
2,4,6-Trichlorophenol	<5.0		1.1	5.0
Hexachlorocyclopentadiene	<10		1.3	10
2-Chloronaphthalene	<5.0		1.4	5.0
4-Chloro-3-methylphenol	<5.0		1.4	5.0
2,6-Dinitrotoluene	<5.0		1.3	5.0
2-Nitrophenol	<5.0		1.2	5.0
Dimethyl phthalate	<5.0		1.2	5.0
2,4-Dinitrophenol	<20		8.1	20
Acenaphthylene	<5.0		1.5	5.0
2,4-Dinitrotoluene	<5.0		1.5	5.0
Acenaphthene	<5.0		1.5	5.0
4-Nitrophenol	<20		3.6	20
Fluorene	<5.0		1.6	5.0
1,2-Diphenylhydrazine	<5.0		1.4	5.0
4-Bromophenyl phenyl ether	<5.0		1.4	5.0
Hexachlorobenzene	<5.0		1.3	5.0
Diethyl phthalate	<5.0		1.3	5.0
4-Chlorophenyl phenyl ether	<5.0		1.3	5.0
Pentachlorophenol	<20		7.5	20
N-Nitrosodiphenylamine	<5.0		1.8	5.0
4,6-Dinitro-2-methylphenol	<20		5.0	20
Phenanthrene	<5.0		1.4	5.0
Anthracene	<5.0		1.4	5.0
Dibenzofuran	<5.0		1.5	5.0
Di-n-butyl phthalate	<5.0		1.2	5.0
Benzidine	<50		10	50
Fluoranthene	<5.0		1.4	5.0

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

Method Blank - Batch: 500-101978

Method: 625

Preparation: 625

Lab Sample ID: MB 500-101978/1-A

Analysis Batch: 500-102244

Instrument ID: CMS01

Client Matrix: Water

Prep Batch: 500-101978

Lab File ID: 101975M.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 1000 mL

Date Analyzed: 12/20/2010 1505

Final Weight/Volume: 1.0 mL

Date Prepared: 12/15/2010 1723

Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Pyrene	<5.0		1.4	5.0
Butyl benzyl phthalate	<5.0		1.3	5.0
Benzo[a]anthracene	<5.0		1.1	5.0
Chrysene	<5.0		1.3	5.0
3,3'-Dichlorobenzidine	<5.0		1.3	5.0
Bis(2-ethylhexyl) phthalate	<10		1.1	10
Di-n-octyl phthalate	<10		1.6	10
Benzo[b]fluoranthene	<5.0		1.1	5.0
Benzo[k]fluoranthene	<5.0		1.4	5.0
Benzo[a]pyrene	<5.0		1.2	5.0
Indeno[1,2,3-cd]pyrene	<5.0		1.3	5.0
Dibenz(a,h)anthracene	<5.0		1.4	5.0
Benzo[g,h,i]perylene	<5.0		1.4	5.0
3 & 4 Methylphenol	<5.0		1.3	5.0
Surrogate	% Rec		Acceptance Limits	
2-Fluorophenol	36		10 - 110	
Phenol-d5	23		10 - 110	
Nitrobenzene-d5	68		28 - 110	
2-Fluorobiphenyl	66		31 - 110	
2,4,6-Tribromophenol	93		34 - 116	
Terphenyl-d14	97		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

**Lab Control Sample - Batch: 500-101978**

**Method: 625**

**Preparation: 625**

Lab Sample ID: LCS 500-101978/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/20/2010 1712  
 Date Prepared: 12/15/2010 1723

Analysis Batch: 500-102244  
 Prep Batch: 500-101978  
 Units: ug/L

Instrument ID: CMS01  
 Lab File ID: 101975BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
N-Nitrosodimethylamine	50.0	20.1	40	10 - 200	
Phenol	50.0	15.7	31	5 - 112	
Bis(2-chloroethyl)ether	50.0	32.2	64	12 - 158	
2,2'-oxybis[1-chloropropane]	50.0	31.1	62	36 - 166	
N-Nitrosodi-n-propylamine	50.0	44.7	89	10 - 230	
Hexachloroethane	50.0	24.1	48	40 - 113	
2-Chlorophenol	50.0	32.6	65	23 - 134	
2-Methylphenol	50.0	33.6	67	30 - 146	
Nitrobenzene	50.0	34.0	68	35 - 180	
Bis(2-chloroethoxy)methane	50.0	38.9	78	33 - 184	
1,2,4-Trichlorobenzene	50.0	25.9	52	44 - 142	
Isophorone	50.0	39.8	80	21 - 196	
2,4-Dimethylphenol	50.0	21.5	43	32 - 119	
Hexachlorobutadiene	50.0	26.6	53	24 - 116	
Naphthalene	50.0	27.9	56	21 - 133	
2,4-Dichlorophenol	50.0	40.5	81	39 - 135	
2,4,6-Trichlorophenol	50.0	42.8	86	37 - 144	
Hexachlorocyclopentadiene	50.0	21.9	44	10 - 200	
2-Chloronaphthalene	50.0	30.9	62	60 - 118	
4-Chloro-3-methylphenol	50.0	49.2	98	22 - 147	
2,6-Dinitrotoluene	50.0	57.6	115	50 - 158	
2-Nitrophenol	50.0	38.9	78	29 - 182	
Dimethyl phthalate	50.0	49.7	99	10 - 112	
2,4-Dinitrophenol	50.0	64.3	129	10 - 191	
Acenaphthylene	50.0	36.5	73	33 - 145	
2,4-Dinitrotoluene	50.0	59.3	119	39 - 139	
Acenaphthene	50.0	39.3	79	47 - 145	
4-Nitrophenol	50.0	21.7	43	10 - 132	
Fluorene	50.0	43.9	88	59 - 121	
4-Bromophenyl phenyl ether	50.0	49.4	99	53 - 127	
Hexachlorobenzene	50.0	50.9	102	10 - 152	
Diethyl phthalate	50.0	51.5	103	10 - 114	
4-Chlorophenyl phenyl ether	50.0	44.3	89	25 - 158	
Pentachlorophenol	50.0	50.9	102	14 - 176	
N-Nitrosodiphenylamine	50.0	48.9	98	10 - 200	
4,6-Dinitro-2-methylphenol	50.0	62.2	124	10 - 181	
Phenanthrene	50.0	48.4	97	54 - 120	
Anthracene	50.0	48.0	96	27 - 133	
Dibenzofuran	50.0	40.7	81		
Di-n-butyl phthalate	50.0	54.1	108	1 - 118	
Benzidine	50.0	<50	0	10 - 200	
Fluoranthene	50.0	53.7	107	26 - 137	
Pyrene	50.0	56.0	112	52 - 115	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

**Lab Control Sample - Batch: 500-101978****Method: 625**  
**Preparation: 625**

Lab Sample ID: LCS 500-101978/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/20/2010 1712  
Date Prepared: 12/15/2010 1723

Analysis Batch: 500-102244  
Prep Batch: 500-101978  
Units: ug/L

Instrument ID: CMS01  
Lab File ID: 101975BS.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Butyl benzyl phthalate	50.0	54.4	109	10 - 152	
Benzo[a]anthracene	50.0	48.4	97	33 - 143	
Chrysene	50.0	48.1	96	17 - 168	
3,3'-Dichlorobenzidine	50.0	38.2	76	10 - 262	
Bis(2-ethylhexyl) phthalate	50.0	49.7	99	8 - 158	
Di-n-octyl phthalate	50.0	54.4	109	4 - 146	
Benzo[b]fluoranthene	50.0	47.1	94	24 - 159	
Benzo[k]fluoranthene	50.0	52.9	106	11 - 162	
Benzo[a]pyrene	50.0	48.6	97	17 - 163	
Indeno[1,2,3-cd]pyrene	50.0	53.8	108	10 - 171	
Dibenz(a,h)anthracene	50.0	51.1	102	10 - 227	
Benzo[g,h,i]perylene	50.0	53.0	106	10 - 219	
3 & 4 Methylphenol	50.0	34.5	69	11 - 150	
Surrogate		% Rec		Acceptance Limits	
2-Fluorophenol		39		10 - 110	
Phenol-d5		29		10 - 110	
Nitrobenzene-d5		65		28 - 110	
2-Fluorobiphenyl		74		31 - 110	
2,4,6-Tribromophenol		111		34 - 116	
Terphenyl-d14		116		20 - 133	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

### Method Blank - Batch: 500-102070

Method: 1664A  
Preparation: 1664A

Lab Sample ID: MB 500-102070/1-A  
Client Matrix: Water

Analysis Batch: 500-102071  
Prep Batch: 500-102070

Instrument ID: No Equipment Assigned  
Lab File ID: N/A

Dilution: 1.0  
Date Analyzed: 12/17/2010 1140  
Date Prepared: 12/17/2010 0515

Units: mg/L

Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Result	Qual	MDL	RL
HEM (Oil & Grease)	<5.0		1.8	5.0

### Lab Control Sample - Batch: 500-102070

Method: 1664A  
Preparation: 1664A

Lab Sample ID: LCS 500-102070/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/17/2010 1144  
Date Prepared: 12/17/2010 0530

Analysis Batch: 500-102071  
Prep Batch: 500-102070  
Units: mg/L

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1000 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HEM (Oil & Grease)	40.0	31.8	80	78 - 114	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

### Method Blank - Batch: 500-102077

Method: SM 2540D

Preparation: N/A

Lab Sample ID: MB 500-102077/1

Analysis Batch: 500-102077

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 12/16/2010 1842

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	<5.0		1.0	5.0

### Lab Control Sample - Batch: 500-102077

Method: SM 2540D

Preparation: N/A

Lab Sample ID: LCS 500-102077/2

Analysis Batch: 500-102077

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 200 mL

Date Analyzed: 12/16/2010 1845

Final Weight/Volume: 200 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	200	192	96	80 - 120	

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-29861-1

Unseeded Control Blank - Batch: 500-101908

Method: SM 5210B

Preparation: N/A

Lab Sample ID: USB 500-101908/1

Analysis Batch: 500-101908

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 12/15/2010 0754

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

Analyte	Result	Qual	MDL	RL
Biochemical Oxygen Demand	<2.0		2.0	2.0

Lab Control Sample - Batch: 500-101908

Method: SM 5210B

Preparation: N/A

Lab Sample ID: LCS 500-101908/2

Analysis Batch: 500-101908

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 12/15/2010 0754

Final Weight/Volume: 1.0 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biochemical Oxygen Demand	198	220	111	85 - 115	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

(optional)		
Report To:		
Contact:		
Company:		
Address:		
Address:		
Phone:		
Fax:		
E-Mail:		

(optional)		
Bill To:		
Contact:		
Company:		
Address:		
Address:		
Phone:		
Fax:		
PO# / Reference#		

## Chain of Custody Record

Lab Job #: 500-29861

Chain of Custody Number: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

(2.3) (2.1)

Temperature °C of Coolant: \_\_\_\_\_

Preservative Key

1. HCl, Cool to 4°
2. H<sub>2</sub>SO<sub>4</sub>, Cool to 4°
3. HNO<sub>3</sub>, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHCO<sub>3</sub>
7. Cool to 4°
8. None
9. Other

Batch ID	MSA#	Sample ID	Sampling			# of Carriers	Parameter	Preservative	8	J	8	8	I						
			Date	Time	Return														
1		GW0UB (12140010)	12/14/10	11:06	2 WW	X	X												
2		GW0UA (12142010)	12/14/10	11:21	6 WW		X					X	X						
3		GW0UD (12142010)	12/14/10	11:25	1 WW														
4		GW0UG (12142010)	12/14/10	11:31	4 WW	X	X	X											
5		GW0UC (12142010)	12/14/10	11:45	2 WW	X	X												

### Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

### Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>BRETT BAER</u>	Company <u>Proines</u>	Date <u>12/14/10</u>	Time <u>10:21</u>	Received By <u>JL</u>	Company <u>TII</u>	Date <u>12/15/10</u>	Time <u>10:30</u>	Lab Courier <input type="checkbox"/>
Relinquished By <input type="checkbox"/>	Company <input type="checkbox"/>	Date <input type="checkbox"/>	Time <input type="checkbox"/>	Received By <input type="checkbox"/>	Company <input type="checkbox"/>	Date <input type="checkbox"/>	Time <input type="checkbox"/>	Shipped <u>FED EX</u>
Relinquished By <input type="checkbox"/>	Company <input type="checkbox"/>	Date <input type="checkbox"/>	Time <input type="checkbox"/>	Received By <input type="checkbox"/>	Company <input type="checkbox"/>	Date <input type="checkbox"/>	Time <input type="checkbox"/>	Hand Delivered <input type="checkbox"/>

Matrix Key	Client Comments	Lab Comments:
WW - Wastewater	SF - Sediment	
W - Water	SD - Soil	
S - Soil	L - Leachate	
SL - Sludge	WI - Wipe	
MS - Miscellaneous	DW - Drinking Water	
OL - Oil	O - Other	
A - Air		

## Login Sample Receipt Check List

Client: Bodine Environmental Services

Job Number: 500-29861-1

Login Number: 29861

List Source: TestAmerica Chicago

Creator: Lunt, Jeff T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.3,2.1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## APPENDIX D

### October 2010 Groundwater Analytical Results

## ANALYTICAL REPORT

Job Number: 500-28530-1

Job Description: Jennison Wright

For:

Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Attention: Troy McFate



Approved for release.  
Richard C Wright  
Project Manager II  
10/28/2010 5:04 PM

Richard C Wright  
Project Manager II  
[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)  
10/28/2010

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:  
TestAmerica Chicago 100201  
TestAmerica West Sacramento CA00044

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street, University Park, IL 60484  
Tel (708) 534-5200 Fax (708) 534-5211 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative  
500-28530-1**

**Comments**

No additional comments.

**Receipt**

Sample MW-5D we received both 1L amber bottles broken - no sample remains. Per discussion with Bodine, this sample will be re-collected.

All other samples were received in good condition within temperature requirements.

**GC/MS Semi VOA**

Method(s) 8270C: Due to the level of dilution required for the following secondary dilutions, surrogate recoveries are not reported: MW-22 (500-28530-8), MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6).

Method(s) 8270C: Surrogate recovery for the following samples was outside control limits: MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6), MW-8S (500-28530-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 97259 exceeded control limits for the non-controlled analyte Benzidine. No corrective action was required. MW-18S (500-28530-1), MW-20 (500-28530-7), MW-22 (500-28530-8), MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6), MW-8D (500-28530-4), MW-8M (500-28530-3), MW-8S (500-28530-2)

Method(s) 8270C: The following sample was diluted due to the abundance of non-target analytes: MW-22 (500-28530-8), MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6), MW-8S (500-28530-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**GC Semi VOA**

Method(s) 8151A: The following samples were diluted due to the abundance of target analytes: MW-22 (500-28530-8), MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6), MW-8M (500-28530-3), MW-8S (500-28530-2). Elevated reporting limits (RLs) are provided.

Method(s) 8151A: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: MW-22 (500-28530-8), MW-23 (500-28530-9), MW-5S (500-28530-5), MW-5S DUP (500-28530-6), MW-8S (500-28530-2).

No other analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-28530-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-28530-1	MW-18S				
Anthracene	0.50	J	0.93	ug/L	8270C
Fluoranthene	0.23	J	0.93	ug/L	8270C
Pyrene	0.16	J	0.93	ug/L	8270C
Pentachlorophenol	0.10	J	0.47	ug/L	8151A
500-28530-2	MW-8S				
Naphthalene	110		9.3	ug/L	8270C
2-Methylnaphthalene	170		4.7	ug/L	8270C
Acenaphthene	11		9.3	ug/L	8270C
Dibenzofuran	12	J	19	ug/L	8270C
Fluorene	13		9.3	ug/L	8270C
Phenanthrene	14		9.3	ug/L	8270C
3 & 4 Methylphenol	4.8	J	19	ug/L	8270C
Pentachlorophenol	86000		47000	ug/L	8151A
500-28530-3	MW-8M				
1,2-Dichlorobenzene	0.64	J	1.9	ug/L	8270C
Naphthalene	67		0.94	ug/L	8270C
2-Methylnaphthalene	0.25	J	0.47	ug/L	8270C
Acenaphthylene	0.83	J	0.94	ug/L	8270C
Acenaphthene	70		0.94	ug/L	8270C
Fluorene	15		0.94	ug/L	8270C
Phenanthrene	0.17	J	0.94	ug/L	8270C
Anthracene	0.20	J	0.94	ug/L	8270C
Carbazole	4.9		4.7	ug/L	8270C
Bis(2-ethylhexyl) phthalate	1.9	J	9.4	ug/L	8270C
3 & 4 Methylphenol	0.56	J	1.9	ug/L	8270C
Pentachlorophenol	12		4.8	ug/L	8151A
500-28530-4	MW-8D				
2-Methylphenol	0.64	J	1.9	ug/L	8270C
Naphthalene	11		0.93	ug/L	8270C
Acenaphthene	0.10	J	0.93	ug/L	8270C
Bis(2-ethylhexyl) phthalate	1.8	J	9.3	ug/L	8270C
3 & 4 Methylphenol	0.78	J	1.9	ug/L	8270C

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-28530-1

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method	
500-28530-5	MW-5S					
Phenol		210	47	ug/L	8270C	
2-Methylphenol		2700	190	ug/L	8270C	
2,4-Dimethylphenol		13000	9400	ug/L	8270C	
Naphthalene		35000	940	ug/L	8270C	
2-Methylnaphthalene		990	47	ug/L	8270C	
Acenaphthylene		96	9.4	ug/L	8270C	
Acenaphthene		750	9.4	ug/L	8270C	
Dibenzofuran		390	19	ug/L	8270C	
Fluorene		350	9.4	ug/L	8270C	
Phenanthrene		370	9.4	ug/L	8270C	
Anthracene		32	9.4	ug/L	8270C	
Carbazole		1300	470	ug/L	8270C	
Fluoranthene		42	9.4	ug/L	8270C	
Pyrene		31	9.4	ug/L	8270C	
Benzo[a]anthracene		1.4	J	1.9	ug/L	8270C
Chrysene		1.2	J	4.7	ug/L	8270C
3 & 4 Methylphenol		4300		190	ug/L	8270C
Pentachlorophenol		1300		480	ug/L	8151A
500-28530-6	MW-5S DUP					
Phenol		190	47	ug/L	8270C	
2-Methylphenol		2500	190	ug/L	8270C	
2,4-Dimethylphenol		13000	9400	ug/L	8270C	
Naphthalene		36000	940	ug/L	8270C	
2-Methylnaphthalene		1000	47	ug/L	8270C	
4-Chloro-3-methylphenol		38	J	94	ug/L	8270C
Acenaphthylene		97		9.4	ug/L	8270C
Acenaphthene		730		9.4	ug/L	8270C
Dibenzofuran		390		19	ug/L	8270C
Fluorene		350		9.4	ug/L	8270C
Phenanthrene		380		9.4	ug/L	8270C
Anthracene		33		9.4	ug/L	8270C
Carbazole		730		47	ug/L	8270C
Fluoranthene		46		9.4	ug/L	8270C
Pyrene		33		9.4	ug/L	8270C
Benzo[a]anthracene		1.3	J	1.9	ug/L	8270C
Chrysene		1.7	J	4.7	ug/L	8270C
3 & 4 Methylphenol		3900		190	ug/L	8270C
Pentachlorophenol		1200		480	ug/L	8151A

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-28530-1

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method
500-28530-7	MW-20				
2-Methylphenol	0.77	J	1.9	ug/L	8270C
2,4-Dimethylphenol	2.3	J	9.3	ug/L	8270C
Naphthalene	23		0.93	ug/L	8270C
2-Methylnaphthalene	0.37	J	0.47	ug/L	8270C
Acenaphthylene	0.17	J	0.93	ug/L	8270C
Acenaphthene	4.7		0.93	ug/L	8270C
Dibenzofuran	2.8		1.9	ug/L	8270C
Fluorene	2.2		0.93	ug/L	8270C
Phenanthrene	5.6		0.93	ug/L	8270C
Anthracene	0.80	J	0.93	ug/L	8270C
Carbazole	4.9		4.7	ug/L	8270C
Fluoranthene	3.2		0.93	ug/L	8270C
Pyrene	2.1		0.93	ug/L	8270C
Benzo[a]anthracene	0.32		0.19	ug/L	8270C
Chrysene	0.23	J	0.47	ug/L	8270C
Bis(2-ethylhexyl) phthalate	2.7	J	9.3	ug/L	8270C
Benzo[b]fluoranthene	0.14	J	0.19	ug/L	8270C
Benzo[a]pyrene	0.12	J	0.19	ug/L	8270C
Indeno[1,2,3-cd]pyrene	0.074	J	0.19	ug/L	8270C
3 & 4 Methylphenol	1.0	J	1.9	ug/L	8270C
Pentachlorophenol	0.17	J	0.47	ug/L	8151A
500-28530-8	MW-22				
Phenol	140		47	ug/L	8270C
2-Methylphenol	2000		190	ug/L	8270C
2,4-Dimethylphenol	9000		4700	ug/L	8270C
Naphthalene	17000		470	ug/L	8270C
2-Methylnaphthalene	480		4.7	ug/L	8270C
Acenaphthylene	50		9.3	ug/L	8270C
Acenaphthene	340		9.3	ug/L	8270C
Dibenzofuran	220		19	ug/L	8270C
Fluorene	200		9.3	ug/L	8270C
Phenanthrene	190		9.3	ug/L	8270C
Anthracene	32		9.3	ug/L	8270C
Carbazole	1100		470	ug/L	8270C
Fluoranthene	32		9.3	ug/L	8270C
Pyrene	22		9.3	ug/L	8270C
Chrysene	1.9	J	4.7	ug/L	8270C
3 & 4 Methylphenol	3900		190	ug/L	8270C
Pentachlorophenol	1200		490	ug/L	8151A

## EXECUTIVE SUMMARY - Detections

Client: Bodine Environmental Services

Job Number: 500-28530-1

Lab Sample ID Analyte	Client Sample ID Analyte	Result / Qualifier	Reporting Limit	Units	Method
500-28530-9	MW-23				
Phenol		390	47	ug/L	8270C
2-Methylphenol		1600	190	ug/L	8270C
2,4-Dimethylphenol		3800	930	ug/L	8270C
Naphthalene		29000	470	ug/L	8270C
Acenaphthylene		42	9.3	ug/L	8270C
Acenaphthene		480	9.3	ug/L	8270C
Dibenzofuran		330	19	ug/L	8270C
Fluorene		280	9.3	ug/L	8270C
Phenanthrene		270	9.3	ug/L	8270C
Anthracene		49	9.3	ug/L	8270C
Carbazole		1900	470	ug/L	8270C
Fluoranthene		39	9.3	ug/L	8270C
Pyrene		25	9.3	ug/L	8270C
Benzo[a]anthracene		2.4	1.9	ug/L	8270C
Chrysene		2.3	J	4.7	8270C
Benzo[b]fluoranthene		1.1	J	1.9	8270C
3 & 4 Methylphenol		4800	190	ug/L	8270C
Pentachlorophenol		1900	470	ug/L	8151A

## METHOD SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28530-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	TAL CHI	SW846 8270C	
Liquid-Liquid Extraction (Separatory Funnel)	TAL CHI		SW846 3510C
Herbicides (GC)	TAL CHI	SW846 8151A	
Extraction (Herbicides)	TAL CHI		SW846 8151A

### Lab References:

TAL CHI = TestAmerica Chicago

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28530-1

Method	Analyst	Analyst ID
SW846 8270C	Akcakal, Duran	DA
SW846 8270C	Bergen, Joe	JB
SW846 8151A	Mroz, Krzysztof A	KAM

## SAMPLE SUMMARY

Client: Bodine Environmental Services

Job Number: 500-28530-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-28530-1	MW-18S	Water	10/12/2010 0957	10/14/2010 1030
500-28530-2	MW-8S	Water	10/12/2010 1044	10/14/2010 1030
500-28530-3	MW-8M	Water	10/12/2010 1116	10/14/2010 1030
500-28530-4	MW-8D	Water	10/12/2010 1318	10/14/2010 1030
500-28530-5	MW-5S	Water	10/12/2010 1349	10/14/2010 1030
500-28530-6	MW-5S DUP	Water	10/12/2010 1349	10/14/2010 1030
500-28530-7	MW-20	Water	10/13/2010 1121	10/14/2010 1030
500-28530-8	MW-22	Water	10/13/2010 1155	10/14/2010 1030
500-28530-9	MW-23	Water	10/13/2010 1225	10/14/2010 1030

# **SAMPLE RESULTS**

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-18S  
Lab Sample ID: 500-28530-1

Date Sampled: 10/12/2010 0957  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010 1948	
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010 2013	
Phenol	<4.7	ug/L	0.72	4.7	1.0
Bis(2-chloroethyl)ether	<1.9	ug/L	0.42	1.9	1.0
1,3-Dichlorobenzene	<1.9	ug/L	0.20	1.9	1.0
1,4-Dichlorobenzene	<1.9	ug/L	0.22	1.9	1.0
1,2-Dichlorobenzene	<1.9	ug/L	0.23	1.9	1.0
Benzyl alcohol	<19	ug/L	4.6	19	1.0
2-Methylphenol	<1.9	ug/L	0.23	1.9	1.0
2,2'-oxybis[1-chloropropane]	<1.9	ug/L	0.24	1.9	1.0
N-Nitrosodi-n-propylamine	<0.47	ug/L	0.14	0.47	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	1.0	4.7	1.0
Nitrobenzene	<0.93	ug/L	0.35	0.93	1.0
Bis(2-chloroethoxy)methane	<1.9	ug/L	0.24	1.9	1.0
1,2,4-Trichlorobenzene	<1.9	ug/L	0.24	1.9	1.0
Benzoic acid	<19	ug/L	4.4	19	1.0
Isophorone	<1.9	ug/L	0.24	1.9	1.0
2,4-Dimethylphenol	<9.3	ug/L	1.5	9.3	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	<0.93	ug/L	0.13	0.93	1.0
2,4-Dichlorophenol	<9.3	ug/L	0.93	9.3	1.0
4-Chloroaniline	<9.3	ug/L	1.2	9.3	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
2,4,5-Trichlorophenol	<9.3	ug/L	1.7	9.3	1.0
Hexachlorocyclopentadiene	<19	ug/L	5.1	19	1.0
2-Methylnaphthalene	<0.47	ug/L	0.14	0.47	1.0
2-Nitroaniline	<4.7	ug/L	1.3	4.7	1.0
2-Chloronaphthalene	<1.9	ug/L	0.21	1.9	1.0
4-Chloro-3-methylphenol	<9.3	ug/L	1.3	9.3	1.0
2,6-Dinitrotoluene	<0.47	ug/L	0.12	0.47	1.0
2-Nitrophenol	<9.3	ug/L	1.3	9.3	1.0
3-Nitroaniline	<9.3	ug/L	1.8	9.3	1.0
Dimethyl phthalate	<1.9	ug/L	0.69	1.9	1.0
2,4-Dinitrophenol	<19	ug/L	7.3	19	1.0
Acenaphthylene	<0.93	ug/L	0.093	0.93	1.0
2,4-Dinitrotoluene	<0.93	ug/L	0.26	0.93	1.0
Acenaphthene	<0.93	ug/L	0.085	0.93	1.0
Dibenzofuran	<1.9	ug/L	0.26	1.9	1.0
4-Nitrophenol	<19	ug/L	3.5	19	1.0
Fluorene	<0.93	ug/L	0.11	0.93	1.0

Troy McFate  
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Job Number: 500-28530-1

Client Sample ID: MW-18S  
 Lab Sample ID: 500-28530-1

Date Sampled: 10/12/2010 0957  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution	
4-Nitroaniline	<9.3	ug/L	1.9	9.3	1.0	
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0	
Hexachlorobenzene	<0.47	ug/L	0.088	0.47	1.0	
Diethyl phthalate	<1.9	ug/L	0.29	1.9	1.0	
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0	
N-Nitrosodiphenylamine	<0.93	ug/L	0.23	0.93	1.0	
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0	
Phenanthrene	<0.93	ug/L	0.073	0.93	1.0	
Anthracene	0.50	J	0.11	0.93	1.0	
Carbazole	<4.7	ug/L	1.2	4.7	1.0	
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0	
Benzidine	<37	*	3.8	37	1.0	
Fluoranthene	0.23	J	0.093	0.93	1.0	
Pyrene	0.16	J	0.089	0.93	1.0	
Butyl benzyl phthalate	<1.9	ug/L	0.28	1.9	1.0	
Benzo[a]anthracene	<0.19	ug/L	0.050	0.19	1.0	
Chrysene	<0.47	ug/L	0.10	0.47	1.0	
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0	
Bis(2-ethylhexyl) phthalate	<9.3	ug/L	1.1	9.3	1.0	
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0	
Benzo[b]fluoranthene	<0.19	ug/L	0.064	0.19	1.0	
Benzo[k]fluoranthene	<0.19	ug/L	0.087	0.19	1.0	
Benzo[a]pyrene	<0.19	ug/L	0.042	0.19	1.0	
Indeno[1,2,3-cd]pyrene	<0.19	ug/L	0.062	0.19	1.0	
Dibenz(a,h)anthracene	<0.28	ug/L	0.11	0.28	1.0	
Benzo[g,h,i]perylene	<0.93	ug/L	0.10	0.93	1.0	
3 & 4 Methylphenol	<1.9	ug/L	0.23	1.9	1.0	
Surrogate				Acceptance Limits		
2-Fluorophenol	30	%		20 - 100		
Phenol-d5	20	%		20 - 100		
Nitrobenzene-d5	64	%		38 - 109		
2-Fluorobiphenyl	57	%		37 - 102		
2,4,6-Tribromophenol	74	%		41 - 134		
Terphenyl-d14	85	%		47 - 120		
Method: 8151A				Date Analyzed: 10/27/2010 0301		
Prep Method: 8151A				Date Prepared: 10/18/2010 1115		
Pentachlorophenol	0.10	J	ug/L	0.077	0.47	1.0
Surrogate				Acceptance Limits		
DCAA	58	%		31 - 110		

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Job Number: 500-28530-1

Client Sample ID: MW-8S  
 Lab Sample ID: 500-28530-2

Date Sampled: 10/12/2010 1044  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution	
Method: 8270C			Date Analyzed: 10/27/2010 2119			
Prep Method: 3510C			Date Prepared: 10/15/2010 2013			
Phenol	<47	ug/L	7.2	47	10	
Bis(2-chloroethyl)ether	<19	ug/L	4.2	19	10	
1,3-Dichlorobenzene	<19	ug/L	2.0	19	10	
1,4-Dichlorobenzene	<19	ug/L	2.2	19	10	
1,2-Dichlorobenzene	<19	ug/L	2.3	19	10	
Benzyl alcohol	<190	ug/L	46	190	10	
2-Methylphenol	<19	ug/L	2.3	19	10	
2,2'-oxybis[1-chloropropane]	<19	ug/L	2.4	19	10	
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	10	
Hexachloroethane	<47	ug/L	11	47	10	
2-Chlorophenol	<47	ug/L	10	47	10	
Nitrobenzene	<9.3	ug/L	3.5	9.3	10	
Bis(2-chloroethoxy)methane	<19	ug/L	2.4	19	10	
1,2,4-Trichlorobenzene	<19	ug/L	2.4	19	10	
Benzoic acid	<190	ug/L	44	190	10	
Isophorone	<19	ug/L	2.4	19	10	
2,4-Dimethylphenol	<93	ug/L	15	93	10	
Hexachlorobutadiene	<47	ug/L	14	47	10	
Naphthalene	110	ug/L	1.3	9.3	10	
2,4-Dichlorophenol	<93	ug/L	9.3	93	10	
4-Chloroaniline	<93	ug/L	12	93	10	
2,4,6-Trichlorophenol	<47	ug/L	10	47	10	
2,4,5-Trichlorophenol	<93	ug/L	17	93	10	
Hexachlorocyclopentadiene	<190	ug/L	51	190	10	
2-Methylnaphthalene	170	ug/L	1.4	4.7	10	
2-Nitroaniline	<47	ug/L	13	47	10	
2-Chloronaphthalene	<19	ug/L	2.1	19	10	
4-Chloro-3-methylphenol	<93	ug/L	13	93	10	
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	10	
2-Nitrophenol	<93	ug/L	13	93	10	
3-Nitroaniline	<93	ug/L	18	93	10	
Dimethyl phthalate	<19	ug/L	6.9	19	10	
2,4-Dinitrophenol	<190	ug/L	73	190	10	
Acenaphthylene	<9.3	ug/L	0.93	9.3	10	
2,4-Dinitrotoluene	<9.3	ug/L	2.6	9.3	10	
Acenaphthene	11	ug/L	0.85	9.3	10	
Dibenzofuran	12	J	ug/L	2.6	19	10
4-Nitrophenol	<190	ug/L	35	190	10	
Fluorene	13	ug/L	1.1	9.3	10	

Troy McFate  
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Job Number: 500-28530-1

Client Sample ID: MW-8S  
 Lab Sample ID: 500-28530-2

Date Sampled: 10/12/2010 1044  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution	
4-Nitroaniline	<93	ug/L	19	93	10	
4-Bromophenyl phenyl ether	<47	ug/L	13	47	10	
Hexachlorobenzene	<4.7	ug/L	0.88	4.7	10	
Diethyl phthalate	<19	ug/L	2.9	19	10	
4-Chlorophenyl phenyl ether	<47	ug/L	12	47	10	
N-Nitrosodiphenylamine	<9.3	ug/L	2.3	9.3	10	
4,6-Dinitro-2-methylphenol	<190	ug/L	47	190	10	
Phenanthrene	14	ug/L	0.73	9.3	10	
Anthracene	<9.3	ug/L	1.1	9.3	10	
Carbazole	<47	ug/L	12	47	10	
Di-n-butyl phthalate	<47	ug/L	11	47	10	
Benzidine	<370	ug/L	38	370	10	
Fluoranthene	<9.3	ug/L	0.93	9.3	10	
Pyrene	<9.3	ug/L	0.89	9.3	10	
Butyl benzyl phthalate	<19	ug/L	2.8	19	10	
Benzo[a]anthracene	<1.9	ug/L	0.50	1.9	10	
Chrysene	<4.7	ug/L	1.0	4.7	10	
3,3'-Dichlorobenzidine	<47	ug/L	12	47	10	
Bis(2-ethylhexyl) phthalate	<93	ug/L	11	93	10	
Di-n-octyl phthalate	<93	ug/L	15	93	10	
Benzo[b]fluoranthene	<1.9	ug/L	0.64	1.9	10	
Benzo[k]fluoranthene	<1.9	ug/L	0.87	1.9	10	
Benzo[a]pyrene	<1.9	ug/L	0.42	1.9	10	
Indeno[1,2,3-cd]pyrene	<1.9	ug/L	0.62	1.9	10	
Dibenz(a,h)anthracene	<2.8	ug/L	1.1	2.8	10	
Benzo[g,h,i]perylene	<9.3	ug/L	1.0	9.3	10	
3 & 4 Methylphenol	4.8	J	ug/L	2.3	19	10
Surrogate					Acceptance Limits	
2-Fluorophenol	30	%			20 - 100	
Phenol-d5	27	%			20 - 100	
Nitrobenzene-d5	32	X	%		38 - 109	
2-Fluorobiphenyl	74	%			37 - 102	
2,4,6-Tribromophenol	70	%			41 - 134	
Terphenyl-d14	76	%			47 - 120	
Method: 8151A			Date Analyzed:	10/27/2010 0344		
Prep Method: 8151A			Date Prepared:	10/18/2010 1115		
Pentachlorophenol	86000		ug/L	7700	47000	100000
Surrogate					Acceptance Limits	
DCAA	0	D	%		31 - 110	

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Job Number: 500-28530-1

Client Sample ID: MW-8M  
 Lab Sample ID: 500-28530-3

Date Sampled: 10/12/2010 1116  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010	2010
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010	2013
Phenol	<4.7	ug/L	0.73	4.7	1.0
Bis(2-chloroethyl)ether	<1.9	ug/L	0.42	1.9	1.0
1,3-Dichlorobenzene	<1.9	ug/L	0.20	1.9	1.0
1,4-Dichlorobenzene	<1.9	ug/L	0.23	1.9	1.0
1,2-Dichlorobenzene	0.64	J ug/L	0.24	1.9	1.0
Benzyl alcohol	<19	ug/L	4.6	19	1.0
2-Methylphenol	<1.9	ug/L	0.24	1.9	1.0
2,2'-oxybis[1-chloropropane]	<1.9	ug/L	0.25	1.9	1.0
N-Nitrosodi-n-propylamine	<0.47	ug/L	0.14	0.47	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	1.0	4.7	1.0
Nitrobenzene	<0.94	ug/L	0.35	0.94	1.0
Bis(2-chloroethoxy)methane	<1.9	ug/L	0.25	1.9	1.0
1,2,4-Trichlorobenzene	<1.9	ug/L	0.25	1.9	1.0
Benzoic acid	<19	ug/L	4.4	19	1.0
Isophorone	<1.9	ug/L	0.25	1.9	1.0
2,4-Dimethylphenol	<9.4	ug/L	1.5	9.4	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	67	ug/L	0.13	0.94	1.0
2,4-Dichlorophenol	<9.4	ug/L	0.94	9.4	1.0
4-Chloroaniline	<9.4	ug/L	1.2	9.4	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
2,4,5-Trichlorophenol	<9.4	ug/L	1.7	9.4	1.0
Hexachlorocyclopentadiene	<19	ug/L	5.2	19	1.0
2-Methylnaphthalene	0.25	J ug/L	0.14	0.47	1.0
2-Nitroaniline	<4.7	ug/L	1.3	4.7	1.0
2-Chloronaphthalene	<1.9	ug/L	0.21	1.9	1.0
4-Chloro-3-methylphenol	<9.4	ug/L	1.3	9.4	1.0
2,6-Dinitrotoluene	<0.47	ug/L	0.12	0.47	1.0
2-Nitrophenol	<9.4	ug/L	1.3	9.4	1.0
3-Nitroaniline	<9.4	ug/L	1.8	9.4	1.0
Dimethyl phthalate	<1.9	ug/L	0.70	1.9	1.0
2,4-Dinitrophenol	<19	ug/L	7.4	19	1.0
Acenaphthylene	0.83	J ug/L	0.094	0.94	1.0
2,4-Dinitrotoluene	<0.94	ug/L	0.26	0.94	1.0
Acenaphthene	70	ug/L	0.086	0.94	1.0
Dibenzofuran	<1.9	ug/L	0.26	1.9	1.0
4-Nitrophenol	<19	ug/L	3.5	19	1.0
Fluorene	15	ug/L	0.11	0.94	1.0

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Job Number: 500-28530-1

Client Sample ID: MW-8M  
 Lab Sample ID: 500-28530-3

Date Sampled: 10/12/2010 1116  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
4-Nitroaniline	<9.4	ug/L	1.9	9.4	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<0.47	ug/L	0.089	0.47	1.0
Diethyl phthalate	<1.9	ug/L	0.29	1.9	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
N-Nitrosodiphenylamine	<0.94	ug/L	0.24	0.94	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrene	0.17	J ug/L	0.074	0.94	1.0
Anthracene	0.20	J ug/L	0.11	0.94	1.0
Carbazole	4.9	ug/L	1.2	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<38	*	3.9	38	1.0
Fluoranthene	<0.94	ug/L	0.094	0.94	1.0
Pyrene	<0.94	ug/L	0.090	0.94	1.0
Butyl benzyl phthalate	<1.9	ug/L	0.28	1.9	1.0
Benzo[a]anthracene	<0.19	ug/L	0.051	0.19	1.0
Chrysene	<0.47	ug/L	0.10	0.47	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	1.9	J ug/L	1.1	9.4	1.0
Di-n-octyl phthalate	<9.4	ug/L	1.5	9.4	1.0
Benzo[b]fluoranthene	<0.19	ug/L	0.065	0.19	1.0
Benzo[k]fluoranthene	<0.19	ug/L	0.088	0.19	1.0
Benzo[a]pyrene	<0.19	ug/L	0.042	0.19	1.0
Indeno[1,2,3-cd]pyrene	<0.19	ug/L	0.062	0.19	1.0
Dibenz(a,h)anthracene	<0.28	ug/L	0.11	0.28	1.0
Benzo[g,h,i]perylene	<0.94	ug/L	0.10	0.94	1.0
3 & 4 Methylphenol	0.56	J ug/L	0.24	1.9	1.0
Surrogate				Acceptance Limits	
2-Fluorophenol	33	%		20 - 100	
Phenol-d5	22	%		20 - 100	
Nitrobenzene-d5	69	%		38 - 109	
2-Fluorobiphenyl	58	%		37 - 102	
2,4,6-Tribromophenol	74	%		41 - 134	
Terphenyl-d14	94	%		47 - 120	
Method: 8151A			Date Analyzed:	10/27/2010 0428	
Prep Method: 8151A			Date Prepared:	10/18/2010 1115	
Pentachlorophenol	12	ug/L	0.78	4.8	10
Surrogate				Acceptance Limits	
DCAA	71	%		31 - 110	

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Job Number: 500-28530-1

Client Sample ID: MW-8D  
 Lab Sample ID: 500-28530-4

Date Sampled: 10/12/2010 1318  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 8270C			Date Analyzed: 10/27/2010 2033		
Prep Method: 3510C			Date Prepared: 10/15/2010 2013		
Phenol	<4.7	ug/L	0.72	4.7	1.0
Bis(2-chloroethyl)ether	<1.9	ug/L	0.42	1.9	1.0
1,3-Dichlorobenzene	<1.9	ug/L	0.20	1.9	1.0
1,4-Dichlorobenzene	<1.9	ug/L	0.22	1.9	1.0
1,2-Dichlorobenzene	<1.9	ug/L	0.23	1.9	1.0
Benzyl alcohol	<19	ug/L	4.6	19	1.0
2-Methylphenol	0.64	J ug/L	0.23	1.9	1.0
2,2'-oxybis[1-chloropropane]	<1.9	ug/L	0.24	1.9	1.0
N-Nitrosodi-n-propylamine	<0.47	ug/L	0.14	0.47	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	1.0	4.7	1.0
Nitrobenzene	<0.93	ug/L	0.35	0.93	1.0
Bis(2-chloroethoxy)methane	<1.9	ug/L	0.24	1.9	1.0
1,2,4-Trichlorobenzene	<1.9	ug/L	0.24	1.9	1.0
Benzoic acid	<19	ug/L	4.4	19	1.0
Isophorone	<1.9	ug/L	0.24	1.9	1.0
2,4-Dimethylphenol	<9.3	ug/L	1.5	9.3	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	11	ug/L	0.13	0.93	1.0
2,4-Dichlorophenol	<9.3	ug/L	0.93	9.3	1.0
4-Chloroaniline	<9.3	ug/L	1.2	9.3	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
2,4,5-Trichlorophenol	<9.3	ug/L	1.7	9.3	1.0
Hexachlorocyclopentadiene	<19	ug/L	5.1	19	1.0
2-Methylnaphthalene	<0.47	ug/L	0.14	0.47	1.0
2-Nitroaniline	<4.7	ug/L	1.3	4.7	1.0
2-Chloronaphthalene	<1.9	ug/L	0.21	1.9	1.0
4-Chloro-3-methylphenol	<9.3	ug/L	1.3	9.3	1.0
2,6-Dinitrotoluene	<0.47	ug/L	0.12	0.47	1.0
2-Nitrophenol	<9.3	ug/L	1.3	9.3	1.0
3-Nitroaniline	<9.3	ug/L	1.8	9.3	1.0
Dimethyl phthalate	<1.9	ug/L	0.69	1.9	1.0
2,4-Dinitrophenol	<19	ug/L	7.3	19	1.0
Acenaphthylene	<0.93	ug/L	0.093	0.93	1.0
2,4-Dinitrotoluene	<0.93	ug/L	0.26	0.93	1.0
Acenaphthene	0.10	J ug/L	0.085	0.93	1.0
Dibenzofuran	<1.9	ug/L	0.26	1.9	1.0
4-Nitrophenol	<19	ug/L	3.5	19	1.0
Fluorene	<0.93	ug/L	0.11	0.93	1.0

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Job Number: 500-28530-1

Client Sample ID: MW-8D  
 Lab Sample ID: 500-28530-4

Date Sampled: 10/12/2010 1318  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
4-Nitroaniline	<9.3	ug/L	1.9	9.3	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<0.47	ug/L	0.088	0.47	1.0
Diethyl phthalate	<1.9	ug/L	0.29	1.9	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
N-Nitrosodiphenylamine	<0.93	ug/L	0.23	0.93	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrene	<0.93	ug/L	0.073	0.93	1.0
Anthracene	<0.93	ug/L	0.11	0.93	1.0
Carbazole	<4.7	ug/L	1.2	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<37	ug/L	3.8	37	1.0
Fluoranthene	<0.93	ug/L	0.093	0.93	1.0
Pyrene	<0.93	ug/L	0.089	0.93	1.0
Butyl benzyl phthalate	<1.9	ug/L	0.28	1.9	1.0
Benzo[a]anthracene	<0.19	ug/L	0.050	0.19	1.0
Chrysene	<0.47	ug/L	0.10	0.47	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	1.8	J ug/L	1.1	9.3	1.0
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0
Benzo[b]fluoranthene	<0.19	ug/L	0.064	0.19	1.0
Benzo[k]fluoranthene	<0.19	ug/L	0.087	0.19	1.0
Benzo[a]pyrene	<0.19	ug/L	0.042	0.19	1.0
Indeno[1,2,3-cd]pyrene	<0.19	ug/L	0.062	0.19	1.0
Dibenz(a,h)anthracene	<0.28	ug/L	0.11	0.28	1.0
Benzo[g,h,i]perylene	<0.93	ug/L	0.10	0.93	1.0
3 & 4 Methylphenol	0.78	J ug/L	0.23	1.9	1.0
Surrogate				Acceptance Limits	
2-Fluorophenol	32	%		20 - 100	
Phenol-d5	21	%		20 - 100	
Nitrobenzene-d5	66	%		38 - 109	
2-Fluorobiphenyl	58	%		37 - 102	
2,4,6-Tribromophenol	60	%		41 - 134	
Terphenyl-d14	88	%		47 - 120	
Method: 8151A				Date Analyzed: 10/27/2010 0449	
Prep Method: 8151A				Date Prepared: 10/18/2010 1115	
Pentachlorophenol	<0.47	ug/L	0.077	0.47	1.0
Surrogate				Acceptance Limits	
DCAA	55	%		31 - 110	

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Job Number: 500-28530-1

Client Sample ID: MW-5S  
 Lab Sample ID: 500-28530-5

Date Sampled: 10/12/2010 1349  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010 2204	
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010 2013	
Phenol	210	ug/L	7.3	47	10
Bis(2-chloroethyl)ether	<19	ug/L	4.2	19	10
1,3-Dichlorobenzene	<19	ug/L	2.0	19	10
1,4-Dichlorobenzene	<19	ug/L	2.3	19	10
1,2-Dichlorobenzene	<19	ug/L	2.4	19	10
Benzyl alcohol	<190	ug/L	46	190	10
2,2'-oxybis[1-chloropropane]	<19	ug/L	2.5	19	10
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	10
Hexachloroethane	<47	ug/L	11	47	10
2-Chlorophenol	<47	ug/L	10	47	10
Nitrobenzene	<9.4	ug/L	3.5	9.4	10
Bis(2-chloroethoxy)methane	<19	ug/L	2.5	19	10
1,2,4-Trichlorobenzene	<19	ug/L	2.5	19	10
Benzoic acid	<190	ug/L	44	190	10
Isophorone	<19	ug/L	2.5	19	10
Hexachlorobutadiene	<47	ug/L	14	47	10
2,4-Dichlorophenol	<94	ug/L	9.4	94	10
4-Chloroaniline	<94	ug/L	12	94	10
2,4,6-Trichlorophenol	<47	ug/L	10	47	10
2,4,5-Trichlorophenol	<94	ug/L	17	94	10
Hexachlorocyclopentadiene	<190	ug/L	52	190	10
2-Nitroaniline	<47	ug/L	13	47	10
2-Chloronaphthalene	<19	ug/L	2.1	19	10
4-Chloro-3-methylphenol	<94	ug/L	13	94	10
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	10
2-Nitrophenol	<94	ug/L	13	94	10
3-Nitroaniline	<94	ug/L	18	94	10
Dimethyl phthalate	<19	ug/L	7.0	19	10
2,4-Dinitrophenol	<190	ug/L	74	190	10
Acenaphthylene	96	ug/L	0.94	9.4	10
2,4-Dinitrotoluene	<9.4	ug/L	2.6	9.4	10
Acenaphthene	750	ug/L	0.86	9.4	10
Dibenzofuran	390	ug/L	2.6	19	10
4-Nitrophenol	<190	ug/L	35	190	10
Fluorene	350	ug/L	1.1	9.4	10
4-Nitroaniline	<94	ug/L	19	94	10
4-Bromophenyl phenyl ether	<47	ug/L	13	47	10
Hexachlorobenzene	<4.7	ug/L	0.89	4.7	10
Diethyl phthalate	<19	ug/L	2.9	19	10

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Job Number: 500-28530-1

Client Sample ID: MW-5S  
 Lab Sample ID: 500-28530-5

Date Sampled: 10/12/2010 1349  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
4-Chlorophenyl phenyl ether	<47	ug/L	12	47	10
N-Nitrosodiphenylamine	<9.4	ug/L	2.4	9.4	10
4,6-Dinitro-2-methylphenol	<190	ug/L	47	190	10
Phenanthrene	370	ug/L	0.74	9.4	10
Anthracene	32	ug/L	1.1	9.4	10
Di-n-butyl phthalate	<47	ug/L	11	47	10
Benzidine	<380	ug/L	39	380	10
Fluoranthene	42	ug/L	0.94	9.4	10
Pyrene	31	ug/L	0.90	9.4	10
Butyl benzyl phthalate	<19	ug/L	2.8	19	10
Benzo[a]anthracene	1.4	J ug/L	0.51	1.9	10
Chrysene	1.2	J ug/L	1.0	4.7	10
3,3'-Dichlorobenzidine	<47	ug/L	12	47	10
Bis(2-ethylhexyl) phthalate	<94	ug/L	11	94	10
Di-n-octyl phthalate	<94	ug/L	15	94	10
Benzo[b]fluoranthene	<1.9	ug/L	0.65	1.9	10
Benzo[k]fluoranthene	<1.9	ug/L	0.88	1.9	10
Benzo[a]pyrene	<1.9	ug/L	0.42	1.9	10
Indeno[1,2,3-cd]pyrene	<1.9	ug/L	0.62	1.9	10
Dibenz(a,h)anthracene	<2.8	ug/L	1.1	2.8	10
Benzo[g,h,i]perylene	<9.4	ug/L	1.0	9.4	10
Surrogate					
2-Fluorophenol	59	%		20 - 100	
Phenol-d5	41	%		20 - 100	
Nitrobenzene-d5	353	X %		38 - 109	
2-Fluorobiphenyl	103	X %		37 - 102	
2,4,6-Tribromophenol	122	%		41 - 134	
Terphenyl-d14	128	X %		47 - 120	
Acceptance Limits					
Method: 8270C Run Type: DL					
Prep Method: 3510C					
2-Methylphenol	2700	ug/L	24	190	100
2-Methylnaphthalene	990	ug/L	14	47	100
Carbazole	1300	ug/L	120	470	100
3 & 4 Methylphenol	4300	ug/L	24	190	100
Acceptance Limits					
Surrogate					
2-Fluorophenol	0	D %		20 - 100	
Phenol-d5	0	D %		20 - 100	
Nitrobenzene-d5	0	D %		38 - 109	
2-Fluorobiphenyl	0	D %		37 - 102	

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Job Number: 500-28530-1

Client Sample ID: MW-5S  
Lab Sample ID: 500-28530-5

Date Sampled: 10/12/2010 1349  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Surrogate				Acceptance Limits	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8270C Run Type: DL2			Date Analyzed:	10/28/2010 1400	
Prep Method: 3510C			Date Prepared:	10/15/2010 2013	
2,4-Dimethylphenol	13000	ug/L	1500	9400	1000
Naphthalene	35000	ug/L	130	940	1000
Surrogate				Acceptance Limits	
2-Fluorophenol	0	D	%	20 - 100	
Phenol-d5	0	D	%	20 - 100	
Nitrobenzene-d5	0	D	%	38 - 109	
2-Fluorobiphenyl	0	D	%	37 - 102	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8151A			Date Analyzed:	10/27/2010 0511	
Prep Method: 8151A			Date Prepared:	10/18/2010 1115	
Pentachlorophenol	1300	ug/L	78	480	1000
Surrogate				Acceptance Limits	
DCAA	0	D	%	31 - 110	

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Job Number: 500-28530-1

Client Sample ID: MW-5S DUP  
 Lab Sample ID: 500-28530-6

Date Sampled: 10/12/2010 1349  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010	2249
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010	2013
Phenol	190	ug/L	7.3	47	10
Bis(2-chloroethyl)ether	<19	ug/L	4.2	19	10
1,3-Dichlorobenzene	<19	ug/L	2.0	19	10
1,4-Dichlorobenzene	<19	ug/L	2.3	19	10
1,2-Dichlorobenzene	<19	ug/L	2.4	19	10
Benzyl alcohol	<190	ug/L	46	190	10
2,2'-oxybis[1-chloropropane]	<19	ug/L	2.5	19	10
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	10
Hexachloroethane	<47	ug/L	11	47	10
2-Chlorophenol	<47	ug/L	10	47	10
Nitrobenzene	<9.4	ug/L	3.5	9.4	10
Bis(2-chloroethoxy)methane	<19	ug/L	2.5	19	10
1,2,4-Trichlorobenzene	<19	ug/L	2.5	19	10
Benzoic acid	<190	ug/L	44	190	10
Isophorone	<19	ug/L	2.5	19	10
Hexachlorobutadiene	<47	ug/L	14	47	10
2,4-Dichlorophenol	<94	ug/L	9.4	94	10
4-Chloroaniline	<94	ug/L	12	94	10
2,4,6-Trichlorophenol	<47	ug/L	10	47	10
2,4,5-Trichlorophenol	<94	ug/L	17	94	10
Hexachlorocyclopentadiene	<190	ug/L	52	190	10
2-Nitroaniline	<47	ug/L	13	47	10
2-Chloronaphthalene	<19	ug/L	2.1	19	10
4-Chloro-3-methylphenol	38	J	13	94	10
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	10
2-Nitrophenol	<94	ug/L	13	94	10
3-Nitroaniline	<94	ug/L	18	94	10
Dimethyl phthalate	<19	ug/L	7.0	19	10
2,4-Dinitrophenol	<190	ug/L	74	190	10
Acenaphthylene	97	ug/L	0.94	9.4	10
2,4-Dinitrotoluene	<9.4	ug/L	2.6	9.4	10
Acenaphthene	730	ug/L	0.86	9.4	10
Dibenzofuran	390	ug/L	2.6	19	10
4-Nitrophenol	<190	ug/L	35	190	10
Fluorene	350	ug/L	1.1	9.4	10
4-Nitroaniline	<94	ug/L	19	94	10
4-Bromophenyl phenyl ether	<47	ug/L	13	47	10
Hexachlorobenzene	<4.7	ug/L	0.89	4.7	10
Diethyl phthalate	<19	ug/L	2.9	19	10

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Job Number: 500-28530-1

Client Sample ID: MW-5S DUP  
 Lab Sample ID: 500-28530-6

Date Sampled: 10/12/2010 1349  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
4-Chlorophenyl phenyl ether	<47	ug/L	12	47	10
N-Nitrosodiphenylamine	<9.4	ug/L	2.4	9.4	10
4,6-Dinitro-2-methylphenol	<190	ug/L	47	190	10
Phenanthrene	380	ug/L	0.74	9.4	10
Anthracene	33	ug/L	1.1	9.4	10
Carbazole	730	ug/L	12	47	10
Di-n-butyl phthalate	<47	ug/L	11	47	10
Benzidine	<380	*	39	380	10
Fluoranthene	46	ug/L	0.94	9.4	10
Pyrene	33	ug/L	0.90	9.4	10
Butyl benzyl phthalate	<19	ug/L	2.8	19	10
Benzo[a]anthracene	1.3	J	0.51	1.9	10
Chrysene	1.7	J	1.0	4.7	10
3,3'-Dichlorobenzidine	<47	ug/L	12	47	10
Bis(2-ethylhexyl) phthalate	<94	ug/L	11	94	10
Di-n-octyl phthalate	<94	ug/L	15	94	10
Benzo[b]fluoranthene	<1.9	ug/L	0.65	1.9	10
Benzo[k]fluoranthene	<1.9	ug/L	0.88	1.9	10
Benzo[a]pyrene	<1.9	ug/L	0.42	1.9	10
Indeno[1,2,3-cd]pyrene	<1.9	ug/L	0.62	1.9	10
Dibenz(a,h)anthracene	<2.8	ug/L	1.1	2.8	10
Benzo[g,h,i]perylene	<9.4	ug/L	1.0	9.4	10

Surrogate	Acceptance Limits		
2-Fluorophenol	57	%	20 - 100
Phenol-d5	41	%	20 - 100
Nitrobenzene-d5	277	X	38 - 109
2-Fluorobiphenyl	101	%	37 - 102
2,4,6-Tribromophenol	119	%	41 - 134
Terphenyl-d14	123	X	47 - 120

Method: 8270C Run Type: DL	Date Analyzed:	10/27/2010 2312
Prep Method: 3510C	Date Prepared:	10/15/2010 2013
2-Methylphenol	2500	ug/L
2-Methylnaphthalene	1000	ug/L
3 & 4 Methylphenol	3900	ug/L

Surrogate	Acceptance Limits		
2-Fluorophenol	0	D	20 - 100
Phenol-d5	0	D	20 - 100
Nitrobenzene-d5	0	D	38 - 109
2-Fluorobiphenyl	0	D	37 - 102

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Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-5S DUP  
Lab Sample ID: 500-28530-6

Date Sampled: 10/12/2010 1349  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Surrogate	Acceptance Limits				
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8270C Run Type: DL2					
Prep Method: 3510C					
2,4-Dimethylphenol	13000	ug/L	1500	9400	1000
Naphthalene	36000	ug/L	130	940	1000
Surrogate	Acceptance Limits				
2-Fluorophenol	0	D	%	20 - 100	
Phenol-d5	0	D	%	20 - 100	
Nitrobenzene-d5	0	D	%	38 - 109	
2-Fluorobiphenyl	0	D	%	37 - 102	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8151A					
Prep Method: 8151A					
Pentachlorophenol	1200	ug/L	79	480	1000
Surrogate	Acceptance Limits				
DCAA	0	D	%	31 - 110	

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Job Number: 500-28530-1

Client Sample ID: MW-20  
 Lab Sample ID: 500-28530-7

Date Sampled: 10/13/2010 1121  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010	2056
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010	2013
Phenol	<4.7	ug/L	0.72	4.7	1.0
Bis(2-chloroethyl)ether	<1.9	ug/L	0.42	1.9	1.0
1,3-Dichlorobenzene	<1.9	ug/L	0.20	1.9	1.0
1,4-Dichlorobenzene	<1.9	ug/L	0.22	1.9	1.0
1,2-Dichlorobenzene	<1.9	ug/L	0.23	1.9	1.0
Benzyl alcohol	<19	ug/L	4.6	19	1.0
2-Methylphenol	0.77	J ug/L	0.23	1.9	1.0
2,2'-oxybis[1-chloropropane]	<1.9	ug/L	0.24	1.9	1.0
N-Nitrosodi-n-propylamine	<0.47	ug/L	0.14	0.47	1.0
Hexachloroethane	<4.7	ug/L	1.1	4.7	1.0
2-Chlorophenol	<4.7	ug/L	1.0	4.7	1.0
Nitrobenzene	<0.93	ug/L	0.35	0.93	1.0
Bis(2-chloroethoxy)methane	<1.9	ug/L	0.24	1.9	1.0
1,2,4-Trichlorobenzene	<1.9	ug/L	0.24	1.9	1.0
Benzoic acid	<19	ug/L	4.4	19	1.0
Isophorone	<1.9	ug/L	0.24	1.9	1.0
2,4-Dimethylphenol	2.3	J ug/L	1.5	9.3	1.0
Hexachlorobutadiene	<4.7	ug/L	1.4	4.7	1.0
Naphthalene	23	ug/L	0.13	0.93	1.0
2,4-Dichlorophenol	<9.3	ug/L	0.93	9.3	1.0
4-Chloroaniline	<9.3	ug/L	1.2	9.3	1.0
2,4,6-Trichlorophenol	<4.7	ug/L	1.0	4.7	1.0
2,4,5-Trichlorophenol	<9.3	ug/L	1.7	9.3	1.0
Hexachlorocyclopentadiene	<19	ug/L	5.1	19	1.0
2-Methylnaphthalene	0.37	J ug/L	0.14	0.47	1.0
2-Nitroaniline	<4.7	ug/L	1.3	4.7	1.0
2-Chloronaphthalene	<1.9	ug/L	0.21	1.9	1.0
4-Chloro-3-methylphenol	<9.3	ug/L	1.3	9.3	1.0
2,6-Dinitrotoluene	<0.47	ug/L	0.12	0.47	1.0
2-Nitrophenol	<9.3	ug/L	1.3	9.3	1.0
3-Nitroaniline	<9.3	ug/L	1.8	9.3	1.0
Dimethyl phthalate	<1.9	ug/L	0.69	1.9	1.0
2,4-Dinitrophenol	<19	ug/L	7.3	19	1.0
Acenaphthylene	0.17	J ug/L	0.093	0.93	1.0
2,4-Dinitrotoluene	<0.93	ug/L	0.26	0.93	1.0
Acenaphthene	4.7	ug/L	0.085	0.93	1.0
Dibenzofuran	2.8	ug/L	0.26	1.9	1.0
4-Nitrophenol	<19	ug/L	3.5	19	1.0
Fluorene	2.2	ug/L	0.11	0.93	1.0

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 Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-20  
 Lab Sample ID: 500-28530-7

Date Sampled: 10/13/2010 1121  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
4-Nitroaniline	<9.3	ug/L	1.9	9.3	1.0
4-Bromophenyl phenyl ether	<4.7	ug/L	1.3	4.7	1.0
Hexachlorobenzene	<0.47	ug/L	0.088	0.47	1.0
Diethyl phthalate	<1.9	ug/L	0.29	1.9	1.0
4-Chlorophenyl phenyl ether	<4.7	ug/L	1.2	4.7	1.0
N-Nitrosodiphenylamine	<0.93	ug/L	0.23	0.93	1.0
4,6-Dinitro-2-methylphenol	<19	ug/L	4.7	19	1.0
Phenanthrene	5.6	ug/L	0.073	0.93	1.0
Anthracene	0.80	J ug/L	0.11	0.93	1.0
Carbazole	4.9	ug/L	1.2	4.7	1.0
Di-n-butyl phthalate	<4.7	ug/L	1.1	4.7	1.0
Benzidine	<37	*	3.8	37	1.0
Fluoranthene	3.2	ug/L	0.093	0.93	1.0
Pyrene	2.1	ug/L	0.089	0.93	1.0
Butyl benzyl phthalate	<1.9	ug/L	0.28	1.9	1.0
Benzo[a]anthracene	0.32	ug/L	0.050	0.19	1.0
Chrysene	0.23	J ug/L	0.10	0.47	1.0
3,3'-Dichlorobenzidine	<4.7	ug/L	1.2	4.7	1.0
Bis(2-ethylhexyl) phthalate	2.7	J ug/L	1.1	9.3	1.0
Di-n-octyl phthalate	<9.3	ug/L	1.5	9.3	1.0
Benzo[b]fluoranthene	0.14	J ug/L	0.064	0.19	1.0
Benzo[k]fluoranthene	<0.19	ug/L	0.087	0.19	1.0
Benzo[a]pyrene	0.12	J ug/L	0.042	0.19	1.0
Indeno[1,2,3-cd]pyrene	0.074	J ug/L	0.062	0.19	1.0
Dibenz(a,h)anthracene	<0.28	ug/L	0.11	0.28	1.0
Benzo[g,h,i]perylene	<0.93	ug/L	0.10	0.93	1.0
3 & 4 Methylphenol	1.0	J ug/L	0.23	1.9	1.0
Surrogate				Acceptance Limits	
2-Fluorophenol	32	%		20 - 100	
Phenol-d5	22	%		20 - 100	
Nitrobenzene-d5	69	%		38 - 109	
2-Fluorobiphenyl	59	%		37 - 102	
2,4,6-Tribromophenol	76	%		41 - 134	
Terphenyl-d14	89	%		47 - 120	
Method: 8151A			Date Analyzed:	10/27/2010 0616	
Prep Method: 8151A			Date Prepared:	10/18/2010 1115	
Pentachlorophenol	0.17	J ug/L	0.077	0.47	1.0
Surrogate				Acceptance Limits	
DCAA	57	%		31 - 110	

Troy McFate  
Bodine Environmental Services  
5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-22  
Lab Sample ID: 500-28530-8

Date Sampled: 10/13/2010 1155  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
<b>Method: 8270C</b>			Date Analyzed:	10/27/2010 2334	
<b>Prep Method: 3510C</b>			Date Prepared:	10/15/2010 2013	
Phenol	140	ug/L	7.2	47	10
Bis(2-chloroethyl)ether	<19	ug/L	4.2	19	10
1,3-Dichlorobenzene	<19	ug/L	2.0	19	10
1,4-Dichlorobenzene	<19	ug/L	2.2	19	10
1,2-Dichlorobenzene	<19	ug/L	2.3	19	10
Benzyl alcohol	<190	ug/L	46	190	10
2,2'-oxybis[1-chloropropane]	<19	ug/L	2.4	19	10
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	10
Hexachloroethane	<47	ug/L	11	47	10
2-Chlorophenol	<47	ug/L	10	47	10
Nitrobenzene	<9.3	ug/L	3.5	9.3	10
Bis(2-chloroethoxy)methane	<19	ug/L	2.4	19	10
1,2,4-Trichlorobenzene	<19	ug/L	2.4	19	10
Benzoic acid	<190	ug/L	44	190	10
Isophorone	<19	ug/L	2.4	19	10
Hexachlorobutadiene	<47	ug/L	14	47	10
2,4-Dichlorophenol	<93	ug/L	9.3	93	10
4-Chloroaniline	<93	ug/L	12	93	10
2,4,6-Trichlorophenol	<47	ug/L	10	47	10
2,4,5-Trichlorophenol	<93	ug/L	17	93	10
Hexachlorocyclopentadiene	<190	ug/L	51	190	10
2-Methylnaphthalene	480	ug/L	1.4	4.7	10
2-Nitroaniline	<47	ug/L	13	47	10
2-Chloronaphthalene	<19	ug/L	2.1	19	10
4-Chloro-3-methylphenol	<93	ug/L	13	93	10
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	10
2-Nitrophenol	<93	ug/L	13	93	10
3-Nitroaniline	<93	ug/L	18	93	10
Dimethyl phthalate	<19	ug/L	6.9	19	10
2,4-Dinitrophenol	<190	ug/L	73	190	10
Acenaphthylene	50	ug/L	0.93	9.3	10
2,4-Dinitrotoluene	<9.3	ug/L	2.6	9.3	10
Acenaphthene	340	ug/L	0.85	9.3	10
Dibenzofuran	220	ug/L	2.6	19	10
4-Nitrophenol	<190	ug/L	35	190	10
Fluorene	200	ug/L	1.1	9.3	10
4-Nitroaniline	<93	ug/L	19	93	10
4-Bromophenyl phenyl ether	<47	ug/L	13	47	10
Hexachlorobenzene	<4.7	ug/L	0.88	4.7	10

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 Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-22  
 Lab Sample ID: 500-28530-8

Date Sampled: 10/13/2010 1155  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Diethyl phthalate	<19	ug/L	2.9	19	10
4-Chlorophenyl phenyl ether	<47	ug/L	12	47	10
N-Nitrosodiphenylamine	<9.3	ug/L	2.3	9.3	10
4,6-Dinitro-2-methylphenol	<190	ug/L	47	190	10
Phenanthrene	190	ug/L	0.73	9.3	10
Anthracene	32	ug/L	1.1	9.3	10
Di-n-butyl phthalate	<47	ug/L	11	47	10
Benzidine	<370	ug/L	38	370	10
Fluoranthene	32	ug/L	0.93	9.3	10
Pyrene	22	ug/L	0.89	9.3	10
Butyl benzyl phthalate	<19	ug/L	2.8	19	10
Benzo[a]anthracene	<1.9	ug/L	0.50	1.9	10
Chrysene	1.9	J	1.0	4.7	10
3,3'-Dichlorobenzidine	<47	ug/L	12	47	10
Bis(2-ethylhexyl) phthalate	<93	ug/L	11	93	10
Di-n-octyl phthalate	<93	ug/L	15	93	10
Benzo[b]fluoranthene	<1.9	ug/L	0.64	1.9	10
Benzo[K]fluoranthene	<1.9	ug/L	0.87	1.9	10
Benzo[a]pyrene	<1.9	ug/L	0.42	1.9	10
Indeno[1,2,3-cd]pyrene	<1.9	ug/L	0.62	1.9	10
Dibenz(a,h)anthracene	<2.8	ug/L	1.1	2.8	10
Benzo[g,h,i]perylene	<9.3	ug/L	1.0	9.3	10

			Acceptance Limits
Surrogate			
2-Fluorophenol	39	%	20 - 100
Phenol-d5	28	%	20 - 100
Nitrobenzene-d5	91	%	38 - 109
2-Fluorobiphenyl	72	%	37 - 102
2,4,6-Tribromophenol	79	%	41 - 134
Terphenyl-d14	80	%	47 - 120

Method: 8270C Run Type: DL	Date Analyzed:	10/27/2010 2357
Prep Method: 3510C	Date Prepared:	10/15/2010 2013
2-Methylphenol	2000	ug/L 23 190 100
Carbazole	1100	ug/L 120 470 100
3 & 4 Methylphenol	3900	ug/L 23 190 100

			Acceptance Limits
Surrogate			
2-Fluorophenol	0	D %	20 - 100
Phenol-d5	0	D %	20 - 100
Nitrobenzene-d5	0	D %	38 - 109
2-Fluorobiphenyl	0	D %	37 - 102

Troy McFate  
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5350 East Firehouse Road  
Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-22  
Lab Sample ID: 500-28530-8

Date Sampled: 10/13/2010 1155  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Surrogate	Acceptance Limits				
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8270C Run Type: DL2					
Prep Method: 3510C					
2,4-Dimethylphenol	9000	ug/L	750	4700	500
Naphthalene	17000	ug/L	65	470	500
Surrogate	Acceptance Limits				
2-Fluorophenol	0	D	%	20 - 100	
Phenol-d5	0	D	%	20 - 100	
Nitrobenzene-d5	0	D	%	38 - 109	
2-Fluorobiphenyl	0	D	%	37 - 102	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
Method: 8151A					
Prep Method: 8151A					
Pentachlorophenol	1200	ug/L	80	490	1000
Surrogate	Acceptance Limits				
DCAA	0	D	%	31 - 110	

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Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-23  
Lab Sample ID: 500-28530-9

Date Sampled: 10/13/2010 1225  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 8270C			Date Analyzed: 10/28/2010 0019		
Prep Method: 3510C			Date Prepared: 10/15/2010 2013		
Phenol	390	ug/L	7.2	47	10
Bis(2-chloroethyl)ether	<19	ug/L	4.2	19	10
1,3-Dichlorobenzene	<19	ug/L	2.0	19	10
1,4-Dichlorobenzene	<19	ug/L	2.2	19	10
1,2-Dichlorobenzene	<19	ug/L	2.3	19	10
Benzyl alcohol	<190	ug/L	46	190	10
2,2'-oxybis[1-chloropropane]	<19	ug/L	2.4	19	10
N-Nitrosodi-n-propylamine	<4.7	ug/L	1.4	4.7	10
Hexachloroethane	<47	ug/L	11	47	10
2-Chlorophenol	<47	ug/L	10	47	10
Nitrobenzene	<9.3	ug/L	3.5	9.3	10
Bis(2-chloroethoxy)methane	<19	ug/L	2.4	19	10
1,2,4-Trichlorobenzene	<19	ug/L	2.4	19	10
Benzoic acid	<190	ug/L	44	190	10
Isophorone	<19	ug/L	2.4	19	10
Hexachlorobutadiene	<47	ug/L	14	47	10
2,4-Dichlorophenol	<93	ug/L	9.3	93	10
4-Chloroaniline	<93	ug/L	12	93	10
2,4,6-Trichlorophenol	<47	ug/L	10	47	10
2,4,5-Trichlorophenol	<93	ug/L	17	93	10
Hexachlorocyclopentadiene	<190	ug/L	51	190	10
2-Methylnaphthalene	<4.7	ug/L	1.4	4.7	10
2-Nitroaniline	<47	ug/L	13	47	10
2-Chloronaphthalene	<19	ug/L	2.1	19	10
4-Chloro-3-methylphenol	<93	ug/L	13	93	10
2,6-Dinitrotoluene	<4.7	ug/L	1.2	4.7	10
2-Nitrophenol	<93	ug/L	13	93	10
3-Nitroaniline	<93	ug/L	18	93	10
Dimethyl phthalate	<19	ug/L	6.9	19	10
2,4-Dinitrophenol	<190	ug/L	73	190	10
Acenaphthylene	42	ug/L	0.93	9.3	10
2,4-Dinitrotoluene	<9.3	ug/L	2.6	9.3	10
Acenaphthene	480	ug/L	0.85	9.3	10
Dibenzofuran	330	ug/L	2.6	19	10
4-Nitrophenol	<190	ug/L	35	190	10
Fluorene	280	ug/L	1.1	9.3	10
4-Nitroaniline	<93	ug/L	19	93	10
4-Bromophenyl phenyl ether	<47	ug/L	13	47	10
Hexachlorobenzene	<4.7	ug/L	0.88	4.7	10

Troy McFate  
 Bodine Environmental Services  
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 Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-23  
 Lab Sample ID: 500-28530-9

Date Sampled: 10/13/2010 1225  
 Date Received: 10/14/2010 1030  
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Diethyl phthalate	<19	ug/L	2.9	19	10
4-Chlorophenyl phenyl ether	<47	ug/L	12	47	10
N-Nitrosodiphenylamine	<9.3	ug/L	2.3	9.3	10
4,6-Dinitro-2-methylphenol	<190	ug/L	47	190	10
Phenanthrene	270	ug/L	0.73	9.3	10
Anthracene	49	ug/L	1.1	9.3	10
Di-n-butyl phthalate	<47	ug/L	11	47	10
Benzidine	<370	ug/L	38	370	10
Fluoranthene	39	ug/L	0.93	9.3	10
Pyrene	25	ug/L	0.89	9.3	10
Butyl benzyl phthalate	<19	ug/L	2.8	19	10
Benzo[a]anthracene	2.4	ug/L	0.50	1.9	10
Chrysene	2.3	J	1.0	4.7	10
3,3'-Dichlorobenzidine	<47	ug/L	12	47	10
Bis(2-ethylhexyl) phthalate	<93	ug/L	11	93	10
Di-n-octyl phthalate	<93	ug/L	15	93	10
Benzo[b]fluoranthene	1.1	J	0.64	1.9	10
Benzo[k]fluoranthene	<1.9	ug/L	0.87	1.9	10
Benzo[a]pyrene	<1.9	ug/L	0.42	1.9	10
Indeno[1,2,3-cd]pyrene	<1.9	ug/L	0.62	1.9	10
Dibenz(a,h)anthracene	<2.8	ug/L	1.1	2.8	10
Benzo[g,h,i]perylene	<9.3	ug/L	1.0	9.3	10

			Acceptance Limits
2-Fluorophenol	54	%	20 - 100
Phenol-d5	40	%	20 - 100
Nitrobenzene-d5	172	X	38 - 109
2-Fluorobiphenyl	95	%	37 - 102
2,4,6-Tribromophenol	115	%	41 - 134
Terphenyl-d14	91	%	47 - 120

Method: 8270C Run Type: DL  
 Prep Method: 3510C

	Date Analyzed:	10/28/2010 0042
	Date Prepared:	10/15/2010 2013
2-Methylphenol	1600	ug/L 23 190 100
2,4-Dimethylphenol	3800	ug/L 150 930 100
Carbazole	1900	ug/L 120 470 100
3 & 4 Methylphenol	4800	ug/L 23 190 100

			Acceptance Limits
2-Fluorophenol	0	D %	20 - 100
Phenol-d5	0	D %	20 - 100
Nitrobenzene-d5	0	D %	38 - 109

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Decatur, IL 62521-9601

Job Number: 500-28530-1

Client Sample ID: MW-23  
Lab Sample ID: 500-28530-9

Date Sampled: 10/13/2010 1225  
Date Received: 10/14/2010 1030  
Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Surrogate				Acceptance Limits	
2-Fluorobiphenyl	0	D	%	37 - 102	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
<b>Method:</b> 8270C <b>Run Type:</b> DL2				Date Analyzed:	10/28/2010 1507
<b>Prep Method:</b> 3510C				Date Prepared:	10/15/2010 2013
Naphthalene	29000	ug/L	65	470	500
Surrogate				Acceptance Limits	
2-Fluorophenol	0	D	%	20 - 100	
Phenol-d5	0	D	%	20 - 100	
Nitrobenzene-d5	0	D	%	38 - 109	
2-Fluorobiphenyl	0	D	%	37 - 102	
2,4,6-Tribromophenol	0	D	%	41 - 134	
Terphenyl-d14	0	D	%	47 - 120	
<b>Method:</b> 8151A				Date Analyzed:	10/27/2010 0700
<b>Prep Method:</b> 8151A				Date Prepared:	10/18/2010 1115
Pentachlorophenol	1900	ug/L	77	470	1000
Surrogate				Acceptance Limits	
DCAA	0	D	%	31 - 110	

## DATA REPORTING QUALIFIERS

Client: Bodine Environmental Services

Job Number: 500-28530-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	RPD of the LCS and LCSD exceeds the control limits
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits
GC Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch
		Basis	Client Matrix	Method	
<b>GC/MS Semi VOA</b>					
Prep Batch: 500-97259					
LCS 500-97259/2-A	Lab Control Sample	T	Water	3510C	
LCSD 500-97259/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 500-97259/1-A	Method Blank	T	Water	3510C	
500-28530-1	MW-18S	T	Water	3510C	
500-28530-2	MW-8S	T	Water	3510C	
500-28530-3	MW-8M	T	Water	3510C	
500-28530-4	MW-8D	T	Water	3510C	
500-28530-5	MW-5S	T	Water	3510C	
500-28530-5DL	MW-5S	T	Water	3510C	
500-28530-5DL2	MW-5S	T	Water	3510C	
500-28530-6	MW-5S DUP	T	Water	3510C	
500-28530-6DL	MW-5S DUP	T	Water	3510C	
500-28530-6DL2	MW-5S DUP	T	Water	3510C	
500-28530-7	MW-20	T	Water	3510C	
500-28530-8	MW-22	T	Water	3510C	
500-28530-8DL	MW-22	T	Water	3510C	
500-28530-8DL2	MW-22	T	Water	3510C	
500-28530-9	MW-23	T	Water	3510C	
500-28530-9DL	MW-23	T	Water	3510C	
500-28530-9DL2	MW-23	T	Water	3510C	
<b>Analysis Batch:500-98228</b>					
LCS 500-97259/2-A	Lab Control Sample	T	Water	8270C	500-97259
LCSD 500-97259/3-A	Lab Control Sample Duplicate	T	Water	8270C	500-97259
MB 500-97259/1-A	Method Blank	T	Water	8270C	500-97259
500-28530-1	MW-18S	T	Water	8270C	500-97259
500-28530-2	MW-8S	T	Water	8270C	500-97259
500-28530-3	MW-8M	T	Water	8270C	500-97259
500-28530-4	MW-8D	T	Water	8270C	500-97259
500-28530-5	MW-5S	T	Water	8270C	500-97259
500-28530-5DL	MW-5S	T	Water	8270C	500-97259
500-28530-6	MW-5S DUP	T	Water	8270C	500-97259
500-28530-6DL	MW-5S DUP	T	Water	8270C	500-97259
500-28530-7	MW-20	T	Water	8270C	500-97259
500-28530-8	MW-22	T	Water	8270C	500-97259
500-28530-8DL	MW-22	T	Water	8270C	500-97259
500-28530-9	MW-23	T	Water	8270C	500-97259
500-28530-9DL	MW-23	T	Water	8270C	500-97259
<b>Analysis Batch:500-98349</b>					
500-28530-5DL2	MW-5S	T	Water	8270C	500-97259
500-28530-6DL2	MW-5S DUP	T	Water	8270C	500-97259
500-28530-8DL2	MW-22	T	Water	8270C	500-97259
500-28530-9DL2	MW-23	T	Water	8270C	500-97259

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## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis			Prep Batch
		Basis	Client Matrix	Method	

#### Report Basis

T = Total

#### GC Semi VOA

##### Prep Batch: 500-97350

LCS 500-97350/2-A	Lab Control Sample	T	Water	8151A
LCSD 500-97350/3-A	Lab Control Sample Duplicate	T	Water	8151A
MB 500-97350/1-A	Method Blank	T	Water	8151A
500-28530-1	MW-18S	T	Water	8151A
500-28530-2	MW-8S	T	Water	8151A
500-28530-3	MW-8M	T	Water	8151A
500-28530-4	MW-8D	T	Water	8151A
500-28530-5	MW-5S	T	Water	8151A
500-28530-6	MW-5S DUP	T	Water	8151A
500-28530-7	MW-20	T	Water	8151A
500-28530-8	MW-22	T	Water	8151A
500-28530-9	MW-23	T	Water	8151A

##### Analysis Batch: 500-98241

LCS 500-97350/2-A	Lab Control Sample	T	Water	8151A	500-97350
LCSD 500-97350/3-A	Lab Control Sample Duplicate	T	Water	8151A	500-97350
MB 500-97350/1-A	Method Blank	T	Water	8151A	500-97350
500-28530-1	MW-18S	T	Water	8151A	500-97350
500-28530-2	MW-8S	T	Water	8151A	500-97350
500-28530-3	MW-8M	T	Water	8151A	500-97350
500-28530-4	MW-8D	T	Water	8151A	500-97350
500-28530-5	MW-5S	T	Water	8151A	500-97350
500-28530-6	MW-5S DUP	T	Water	8151A	500-97350
500-28530-7	MW-20	T	Water	8151A	500-97350
500-28530-8	MW-22	T	Water	8151A	500-97350
500-28530-9	MW-23	T	Water	8151A	500-97350

#### Report Basis

T = Total

# Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

## Surrogate Recovery Report

### 8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

#### Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
500-28530-1	MW-18S	30	20	64	57	74	85
500-28530-2	MW-8S	30	27	32X	74	70	76
500-28530-3	MW-8M	33	22	69	58	74	94
500-28530-4	MW-8D	32	21	66	58	60	88
500-28530-5	MW-5S	59	41	353X	103X	122	128X
500-28530-5 DL	MW-5S DL	0D	0D	0D	0D	0D	0D
500-28530-5 DL2	MW-5S DL2	0D	0D	0D	0D	0D	0D
500-28530-6	MW-5S DUP	57	41	277X	101	119	123X
500-28530-6 DL	MW-5S DUP DL	0D	0D	0D	0D	0D	0D
500-28530-6 DL2	MW-5S DUP DL2	0D	0D	0D	0D	0D	0D
500-28530-7	MW-20	32	22	69	59	76	89
500-28530-8	MW-22	39	28	91	72	79	80
500-28530-8 DL	MW-22 DL	0D	0D	0D	0D	0D	0D
500-28530-8 DL2	MW-22 DL2	0D	0D	0D	0D	0D	0D
500-28530-9	MW-23	54	40	172X	95	115	91
500-28530-9 DL	MW-23 DL	0D	0D	0D	0D	0D	0D
500-28530-9 DL2	MW-23 DL2	0D	0D	0D	0D	0D	0D
MB 500-97259/1-A		43	30	85	72	77	100
LCS 500-97259/2-A		43	31	88	80	84	97
LCSD 500-97259/3-A		40	29	82	74	88	90

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol	20-100
PHL = Phenol-d5	20-100
NBZ = Nitrobenzene-d5	38-109
FBP = 2-Fluorobiphenyl	37-102
TBP = 2,4,6-Tribromophenol	41-134
TPH = Terphenyl-d14	47-120

**Quality Control Results**

Client: Bodine Environmental Services

Job Number: 500-28530-1

**Surrogate Recovery Report****8151A Herbicides (GC)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	DCPA2 %Rec
500-28530-1	MW-18S	58
500-28530-2	MW-8S	0D
500-28530-3	MW-8M	71
500-28530-4	MW-8D	55
500-28530-5	MW-5S	0D
500-28530-6	MW-5S DUP	0D
500-28530-7	MW-20	57
500-28530-8	MW-22	0D
500-28530-9	MW-23	0D
MB 500-97350/1-A		42
LCS 500-97350/2-A		43
LCSD 500-97350/3-A		44

Surrogate	Acceptance Limits
DCPA = DCAA	31-110

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

**Method Blank - Batch: 500-97259****Method: 8270C  
Preparation: 3510C**

Lab Sample ID: MB 500-97259/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/27/2010 1733  
Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
Prep Batch: 500-97259  
Units: ug/L

Instrument ID: CMS20  
Lab File ID: 97259M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Phenol	<5.0		0.77	5.0
Bis(2-chloroethyl)ether	<2.0		0.45	2.0
1,3-Dichlorobenzene	<2.0		0.21	2.0
1,4-Dichlorobenzene	<2.0		0.24	2.0
1,2-Dichlorobenzene	<2.0		0.25	2.0
Benzyl alcohol	<20		4.9	20
2-Methylphenol	<2.0		0.25	2.0
2,2'-oxybis[1-chloropropane]	<2.0		0.26	2.0
N-Nitrosodi-n-propylamine	<0.50		0.15	0.50
Hexachloroethane	<5.0		1.2	5.0
2-Chlorophenol	<5.0		1.1	5.0
Nitrobenzene	<1.0		0.37	1.0
Bis(2-chloroethoxy)methane	<2.0		0.26	2.0
1,2,4-Trichlorobenzene	<2.0		0.26	2.0
Benzoic acid	<20		4.7	20
Isophorone	<2.0		0.26	2.0
2,4-Dimethylphenol	<10		1.6	10
Hexachlorobutadiene	<5.0		1.5	5.0
Naphthalene	<1.0		0.14	1.0
2,4-Dichlorophenol	<10		1.0	10
4-Chloroaniline	<10		1.3	10
2,4,6-Trichlorophenol	<5.0		1.1	5.0
2,4,5-Trichlorophenol	<10		1.8	10
Hexachlorocyclopentadiene	<20		5.5	20
2-Methylnaphthalene	<0.50		0.15	0.50
2-Nitroaniline	<5.0		1.4	5.0
2-Chloronaphthalene	<2.0		0.22	2.0
4-Chloro-3-methylphenol	<10		1.4	10
2,6-Dinitrotoluene	<0.50		0.13	0.50
2-Nitrophenol	<10		1.4	10
3-Nitroaniline	<10		1.9	10
Dimethyl phthalate	<2.0		0.74	2.0
2,4-Dinitrophenol	<20		7.8	20
Acenaphthylene	<1.0		0.10	1.0
2,4-Dinitrotoluene	<1.0		0.28	1.0
Acenaphthene	<1.0		0.091	1.0
Dibenzofuran	<2.0		0.28	2.0
4-Nitrophenol	<20		3.7	20
Fluorene	<1.0		0.12	1.0
4-Nitroaniline	<10		2.0	10
4-Bromophenyl phenyl ether	<5.0		1.4	5.0
Hexachlorobenzene	<0.50		0.094	0.50
Diethyl phthalate	<2.0		0.31	2.0

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

**Method Blank - Batch: 500-97259**

**Method: 8270C**  
**Preparation: 3510C**

Lab Sample ID: MB 500-97259/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/27/2010 1733  
Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
Prep Batch: 500-97259  
Units: ug/L

Instrument ID: CMS20  
Lab File ID: 97259M.D  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 1.0 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
4-Chlorophenyl phenyl ether	<5.0		1.3	5.0
N-Nitrosodiphenylamine	<1.0		0.25	1.0
4,6-Dinitro-2-methylphenol	<20		5.0	20
Phenanthrene	<1.0		0.078	1.0
Anthracene	<1.0		0.12	1.0
Carbazole	<5.0		1.3	5.0
Di-n-butyl phthalate	<5.0		1.2	5.0
Benzidine	<40		4.1	40
Fluoranthene	<1.0		0.10	1.0
Pyrene	<1.0		0.095	1.0
Butyl benzyl phthalate	<2.0		0.30	2.0
Benzo[a]anthracene	<0.20		0.054	0.20
Chrysene	<0.50		0.11	0.50
3,3'-Dichlorobenzidine	<5.0		1.3	5.0
Bis(2-ethylhexyl) phthalate	<10		1.2	10
Di-n-octyl phthalate	<10		1.6	10
Benzo[b]fluoranthene	<0.20		0.069	0.20
Benzo[k]fluoranthene	<0.20		0.093	0.20
Benzo[a]pyrene	<0.20		0.045	0.20
Indeno[1,2,3-cd]pyrene	<0.20		0.066	0.20
Dibenz(a,h)anthracene	<0.30		0.12	0.30
Benzo[g,h,i]perylene	<1.0		0.11	1.0
3 & 4 Methylphenol	<2.0		0.25	2.0

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	43	20 - 100
Phenol-d5	30	20 - 100
Nitrobenzene-d5	85	38 - 109
2-Fluorobiphenyl	72	37 - 102
2,4,6-Tribromophenol	77	41 - 134
Terphenyl-d14	100	47 - 120

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 500-97259

**Method: 8270C**  
**Preparation: 3510C**

LCS Lab Sample ID: LCS 500-97259/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/27/2010 1756  
 Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
 Prep Batch: 500-97259  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 97259BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

LCSD Lab Sample ID: LCSD 500-97259/3-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/27/2010 1818  
 Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
 Prep Batch: 500-97259  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 97259BD.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	42	39	21 - 100	8	20		
Bis(2-chloroethyl)ether	106	99	43 - 106	7	20		
1,3-Dichlorobenzene	56	52	33 - 100	7	20		
1,4-Dichlorobenzene	57	53	33 - 100	7	20		
1,2-Dichlorobenzene	61	56	35 - 100	8	20		
Benzyl alcohol	80	74	47 - 100	8	20		
2-Methylphenol	73	67	49 - 100	8	20		
2,2'-oxybis[1-chloropropane]	86	80	44 - 100	7	20		
N-Nitrosodi-n-propylamine	108	98	53 - 110	10	20		
Hexachloroethane	59	55	31 - 100	8	20		
2-Chlorophenol	75	72	58 - 100	5	20		
Nitrobenzene	88	83	56 - 100	6	20		
Bis(2-chloroethoxy)methane	89	82	61 - 100	8	20		
1,2,4-Trichlorobenzene	58	55	51 - 100	6	20		
Benzoic acid	23	24	10 - 100	4	20	J	J
Isophorone	90	82	60 - 100	9	20		
2,4-Dimethylphenol	71	67	44 - 103	5	20		
Hexachlorobutadiene	56	53	30 - 100	5	20		
Naphthalene	70	67	43 - 100	5	20		
2,4-Dichlorophenol	84	79	57 - 102	6	20		
4-Chloroaniline	92	85	54 - 100	7	20		
2,4,6-Trichlorophenol	83	79	54 - 103	5	20		
2,4,5-Trichlorophenol	90	88	54 - 110	3	20		
Hexachlorocyclopentadiene	49	47	18 - 100	3	20		
2-Methylnaphthalene	70	65	44 - 100	8	20		
2-Nitroaniline	104	102	71 - 113	2	20		
2-Chloronaphthalene	73	69	48 - 100	7	20		
4-Chloro-3-methylphenol	96	92	58 - 106	5	20		
2,6-Dinitrotoluene	99	98	60 - 111	1	20		
2-Nitrophenol	83	77	53 - 103	7	20		
3-Nitroaniline	90	92	49 - 116	2	20		
Dimethyl phthalate	95	94	57 - 108	2	20		
2,4-Dinitrophenol	81	89	40 - 124	10	20		

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

### Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 500-97259

Method: 8270C

Preparation: 3510C

LCS Lab Sample ID: LCS 500-97259/2-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/27/2010 1756  
 Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
 Prep Batch: 500-97259  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 97259BS.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

LCSD Lab Sample ID: LCSD 500-97259/3-A  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/27/2010 1818  
 Date Prepared: 10/15/2010 2013

Analysis Batch: 500-98228  
 Prep Batch: 500-97259  
 Units: ug/L

Instrument ID: CMS20  
 Lab File ID: 97259BD.D  
 Initial Weight/Volume: 1000 mL  
 Final Weight/Volume: 1.0 mL  
 Injection Volume: 1 uL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acenaphthylene	84	79	48 - 100	6	20		
2,4-Dinitrotoluene	100	101	56 - 119	2	20		
Acenaphthene	78	75	48 - 100	4	20		
Dibenzofuran	86	83	53 - 100	4	20		
4-Nitrophenol	56	57	22 - 100	2	20		
Fluorene	90	89	53 - 103	1	20		
4-Nitroaniline	93	97	48 - 122	4	20		
4-Bromophenyl phenyl ether	87	85	51 - 112	2	20		
Hexachlorobenzene	90	89	52 - 115	1	20		
Diethyl phthalate	103	101	59 - 110	2	20		
4-Chlorophenyl phenyl ether	84	83	51 - 102	1	20		
N-Nitrosodiphenylamine	99	99	46 - 118	1	20		
4,6-Dinitro-2-methylphenol	89	98	58 - 116	9	20		
Phenanthrene	94	99	52 - 112	5	20		
Anthracene	96	98	50 - 111	2	20		
Carbazole	96	97	58 - 112	1	20		
Di-n-butyl phthalate	108	106	57 - 118	2	20		
Benzidine	3	2	10 - 100	67	20	*	*
Fluoranthene	100	102	54 - 120	2	20		
Pyrene	105	94	61 - 130	11	20		
Butyl benzyl phthalate	112	106	72 - 129	5	20		
Benzo[a]anthracene	94	95	66 - 121	0	20		
Chrysene	98	93	61 - 127	5	20		
3,3'-Dichlorobenzidine	85	88	60 - 127	3	20		
Bis(2-ethylhexyl) phthalate	112	108	71 - 125	4	20		
Di-n-octyl phthalate	101	92	56 - 146	10	20		
Benzo[b]fluoranthene	84	94	60 - 143	12	20		
Benzo[k]fluoranthene	93	87	50 - 145	7	20		
Benzo[a]pyrene	88	90	61 - 137	2	20		
Indeno[1,2,3-cd]pyrene	93	94	60 - 151	1	20		
Dibenz(a,h)anthracene	94	95	60 - 146	1	20		
Benzo[g,h,i]perylene	88	86	57 - 152	2	20		
3 & 4 Methylphenol	77	72	47 - 100	6	20		

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2-Fluorophenol	43	40	20 - 100
Phenol-d5	31	29	20 - 100
Nitrobenzene-d5	88	82	38 - 109
2-Fluorobiphenyl	80	74	37 - 102
2,4,6-Tribromophenol	84	88	41 - 134
Terphenyl-d14	97	90	47 - 120

## Quality Control Results

Client: Bodine Environmental Services

Job Number: 500-28530-1

**Method Blank - Batch: 500-97350****Method: 8151A****Preparation: 8151A**

Lab Sample ID: MB 500-97350/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/27/2010 0155  
Date Prepared: 10/18/2010 1115

Analysis Batch: 500-98241  
Prep Batch: 500-97350  
Units: ug/L

Instrument ID: INST41-42  
Lab File ID: 10211042\_132.d  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10.0 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Pentachlorophenol	<0.50		0.082	0.50
Surrogate	% Rec			Acceptance Limits
DCAA	42			31 - 110

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 500-97350****Method: 8151A**  
**Preparation: 8151A**

LCS Lab Sample ID: LCS 500-97350/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/27/2010 0217  
Date Prepared: 10/18/2010 1115

Analysis Batch: 500-98241  
Prep Batch: 500-97350  
Units: ug/L

Instrument ID: INST41-42  
Lab File ID: 10211042\_133.d  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10.0 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 500-97350/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/27/2010 0239  
Date Prepared: 10/18/2010 1115

Analysis Batch: 500-98241  
Prep Batch: 500-97350  
Units: ug/L

Instrument ID: INST41-42  
Lab File ID: 10211042\_134.d  
Initial Weight/Volume: 1000 mL  
Final Weight/Volume: 10.0 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Pentachlorophenol	77	76	45 - 107	1	20		
Surrogate	LCS % Rec			LCSD % Rec			Acceptance Limits
DCAA	43	44			31 - 110		



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

(optional)	
Report To	Contact _____
Company: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
E-Mail: _____	

(optional)	
Bill To	Contact: _____
Company: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
PO# Reference# _____	

## Chain of Custody Record

Lab Job #: 500-28530

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler. (3.4) (4.1) (3.5)

Preservative Key								
1. HCl, Cool to 4°								
2. H <sub>2</sub> SO <sub>4</sub> , Cool to 4°								
3. HNO <sub>3</sub> , Cool to 4°								
4. NaOH, Cool to 4°								
5. NaCl/Zn, Cool to 4°								
6. NaHSO <sub>4</sub>								
7. Cool to 4°								
8. None								
9. Other								

Lab ID	MSA/SD	Sample ID	Sampling		# of Containers	Matrix	Parameter	Preservative	PCP-8151	5000-8270	Comments
			Date	Time							
1		MW-18S	10/12/10	0957	2	N	X	X			
2		MW-8S		1044	2	W	X	X			
3		MW-8M		1116	2	W	X	X			
4		MW-8D		1318	2	W	X	X			

### Turnaround Time Required (Business Days)

1 Day    2 Days    5 Days    7 Days    10 Days    15 Days    Other \_\_\_\_\_  
 Return to Client     Disposal by Lab     Archive for \_\_\_\_\_ Months    (A fee may be assessed if samples are retained longer than 1 month)  
 Requested Due Date \_\_\_\_\_

Relinquished By <i>[Signature]</i>	Company <i>[Signature]</i>	Date 10/13/10	Time 4:30pm	Received By <i>[Signature]</i>	Company <i>[Signature]</i>	Date 10/14/10	Time 1:30	Lab Courier _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Shipped FED EX
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Hand Delivered _____

Matrix Key		Client Comments	Lab Comments:
WW - Wastewater	SE - Sediment		
W - Water	SD - Soil		
S - Soil	L - Leachate		
SL - Sludge	WI - Wipe		
MS - Miscellaneous	DW - Drinking Water		
QL - Oil	O - Other		
A - Air			

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.634.5211

(optional)		(optional)		Chain of Custody Record	
Report To	Contact:	Bill To	Contact:	Lab Job #:	500-28530
Company:	Address:	Company:	Address:	Chain of Custody Number:	
Address:	Address:	Address:	Address:	Page	of
Phone:	Fax:	Phone:	Fax:	Temperature °C of Cooler:	
E-Mail:		PO#/Reference#			

Lab ID	MSAID	Sample ID	Sampling		Parameter	Preservative	8	PCP - 8151	Comments	Preservative Key
			Date	Time						
			# of Containers	Matrix						
7	MW-20		10/13/10	1121 AM	2	W	X	X		1. HCl, Cool to 4°
8	MW-22		10/13/10	1155 AM	2	W	X	X		2. H2SO4, Cool to 4°
9	MW-23		10/13/10	1225	2	W	X	X		3. HNO3, Cool to 4°
										4. NaOH, Cool to 4°
										5. NaOH/Zn, Cool to 4°
										6. NaHSO4
										7. Cool to 4°
										B. None
										9. Other

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Requested Due Date

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Reinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
<i>July 18, 2010</i>		10/13/10	4:30 PM	<i>Jlt</i>		10/14/10	1030	
Reinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped
Reinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered

Matrix Key  
WW - Wastewater  
W - Water  
S - Soil  
SL - Sludge  
MS - Miscellaneous  
OL - Oil  
A - Air

SE - Sediment  
SO - Soil  
L - Leachate  
WI - Wipe  
DW - Drinking Water  
O - Other

Client Comments

Lab Comments:

## Login Sample Receipt Check List

Client: Bodine Environmental Services

Job Number: 500-28530-1

Login Number: 28530

List Source: TestAmerica Chicago

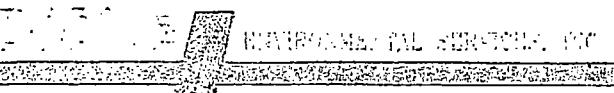
Creator: Lunt, Jeff T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.4,4.1,3.9
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

**APPENDIX E**

**Groundwater Sampling Forms**



Waste Management      Tank Removal  
24-hour Service      Air Monitoring  
Site Remediation      Spill Response  
Environmental Audits      RCRA Closures

*Environmental Consulting & Contracting*

Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL      BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-185      Sampling Date: 10/12/2010      Time: 0957 hr

Weather Conditions: Partly Sunny      Air Temp: 69°F

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

\_\_\_\_\_

\_\_\_\_\_

Purge Method: Peristaltic Pump      Purge Date: 10/12/10

A. Well Diameter: 2"=0.167 feet      Purge Start: 9:30

B. Well Depth: 31.00 feet      Purge Stop: 10:00  
(from TOC)

C. Water Level: 16.17 feet      Purge Rate: .5 ml/min  
(measured)

D. Height of Water:                  feet      Volume Purged:                   
(B-C)

E. Casing Volume:                  gallons      Purged by: BRETT BAKER  
(D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)

F. Number of Gallons to Purge:                       Witness: REVELY

Sampling Date: 10/12/10      Sampling Time: 0957

Sampling Method: Peristaltic Pump      Depth of Sample: 24' B65

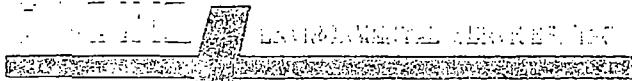
pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes \_\_\_\_\_ No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: BRETT BAKER      Witness: REVELY



ENVIRONMENTAL MANAGEMENT

Waste Management  
24-hour Service  
Site Remediation  
Environmental Audits

Tank Removal  
Air Monitoring  
Spill Response  
RCRA Closures

Environmental Consulting &amp; Contracting

## WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-185

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
0934		60.05	1.348	.99	6.45	16-32
0935		60.27	1.348	.94	6.51	
0936		60.18	1.354	.70	6.56	
0941		60.64	1.360	.45	6.64	"
0944		59.65	1.377	.47	6.75	
0946		59.34	1.378	.38	6.80	
0948		59.31	1.382	.34	6.84	
0950	7 liters	59.21	1.384	.31	6.84	
0952	8 liters.	59.21	1.384	.28	6.81	
0954	9 liters	59.26	1.382	.25	6.82	
0957	10 liters	59.30	1.381	.25	6.84	↓
			"	"	"	
				"	"	
				"	"	
				"	"	

Additional Comments: Sample time 09:57, sampled after 10 liters.



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Spill Response  
RCRA Closures*Environmental Consulting & Contracting*Monitoring Well Sampling FormClient: IEPA/Jennison Wright NPL BES Job #: 119386-11Facility Location: Galesburg, IllinoisWell ID#: MW-8SR Sampling Date: 10/12/2010 Time: 1042 hrWeather Conditions: Partly sunny Air Temp: 70°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

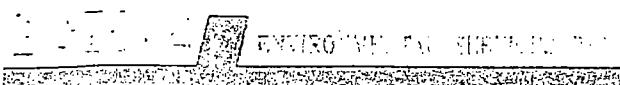
Purge Method: PERISTALTIC PUMP Purge Date: 10/12/10A. Well Diameter: 2"=0.167 feet Purge Start: 1015B. Well Depth: 25.00 feet Purge Stop: 1042  
(from TOC)C. Water Level: 16.82 feet Purge Rate: .5 l/m  
(measured)D. Height of Water:                  feet Volume Purged:                   
(B-C)E. Casing Volume:                  gallons Purged by: B. Miller  
(D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)F. Number of Gallons to Purge:                  Witness: L. EveySampling Date: 10/12/10 Sampling Time: 1042Sampling Method: PERISTALTIC PUMP Depth of Sample: 20' BGSpH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: B. MILLER/BALLES Witness: L. Evey



Waste Management  
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*Environmental Consulting & Contracting*

## WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-85R

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1018	1 liter	61.19	1.413	3.06	6.82	16.95
1020	2 liters	60.21	1.409	0.64	6.78	
1022	3 1/2 liters	60.65	1.406	0.44	6.82	
1024	4 1/2 liters	60.45	1.406	0.30	6.91	
1027	5 liters	60.46	1.404	0.23	6.98	
1029	6 liters	60.29	1.404	0.22	7.07	
1031	7 liters	60.37	1.400	0.22	7.20	
1033	8 liters	60.46	1.396	0.19	7.30	
1035	9 1/2 liters	60.52	1.395	0.17	7.46	
1038	10 liters	60.46	1.394	0.16	7.46	
1040	11 liters	60.33	1.395	0.14	7.48	
1042	12 liters	60.37	1.392	0.14	7.50	

Additional Comments: Sampled at 10:15 AM.

Sample Time: 1042 AM, Sampled after 12 liters

*Environmental Consulting & Contracting*

Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-8MR Sampling Date: 10/12/2010 Time: 1116 hr

Weather Conditions: Partly Sunny Air Temp: 70°F

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

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Purge Method: Pump Purge Date: 10/12/10

A. Well Diameter: 2"=0.167 feet Purge Start: 1054

B. Well Depth: 52.5 feet (from TOC) Purge Stop: 1116

C. Water Level: 15.83 feet (measured) Purge Rate: .5 gal/m

D. Height of Water:  feet Volume Purged:

E. Casing Volume:  gallons Purged by: Baker

(D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)

F. Number of Gallons to Purge:  Witness: Revy

Sampling Date: 10/12/10 Sampling Time: 1116

Sampling Method: Pump Depth of Sample: 47.5' BGS

pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: Baker Witness: Revy

WATER QUALITY/STABILIZATION READINGSWELL ID# MW-891R

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1058	1 liter	59.29	0.857	1.27	7.86	15.90
1101	2 liter	59.15	0.849	0.64	7.96	
1103	3 liter	59.18	0.843	0.48	8.02	
1105	4 liter	58.92	0.844	0.36	8.08	
1107	5 liter	58.85	0.843	0.31	8.10	
1110	6 liter	58.84	0.845	0.25	8.10	
1112	7 liter	58.83	0.846	0.21	8.08	
1114	8 liter	58.90	0.847	0.19	8.05	
1116	9 liter	59.14	0.845	0.16	8.04	

Additional Comments: started P 1054

Sampled after  
@ 11 liters

sampled P 1116 A.M.

*Environmental Consulting & Contracting*

Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL      BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-8D      Sampling Date: 10/12/2010      Time: 11:00 hr

Weather Conditions: Sunny      Air Temp: 75°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

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Purge Method: Pestech      Purge Date: 10/12/10

A. Well Diameter: 2"=0.167 feet      Purge Start: 12:55 PM

B. Well Depth: 117.0 feet      Purge Stop: 1:18 PM  
(from TOC)

C. Water Level: 17.47 feet      Purge Rate: .5 Gpm  
(measured)

D. Height of Water:  feet      Volume Purged:   
(B-C)

E. Casing Volume:  gallons      Purged by: B. Baker  
(D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)

F. Number of Gallons to Purge:       Witness: R. Evey

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Sampling Date: 10/12/10      Sampling Time: 11:18 PM

Sampling Method: Pestech pump      Depth of Sample: 112' bgs

pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

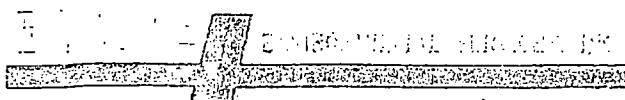
Temperature: \_\_\_\_\_ °F      Metals Filtered Yes \_\_\_\_\_ No: \_\_\_\_\_ Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: Brett Baker      Witness: R. Evey

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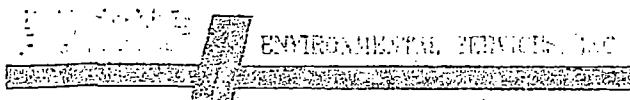
*Environmental Consulting & Contracting*

WATER QUALITY/STABILIZATION READINGS  
WELL ID# MW-8D

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1259	1 liter	64.26	0.9961	2.75	7.26	17.53
103	2 liters	63.47	1.006	1.13	7.35	
105	3 liters	62.90	1.020	0.76	7.41	
107	4 liters	62.84	1.022	0.58	7.51	"
109	5 liters	62.70	1.028	0.44	7.57	
112	6 liters	62.64	1.030	0.36	7.58	
115	7 liters	62.73	1.032	0.31	7.57	
118	8 liters	62.55	1.034	0.29	7.56	
					"	
					"	
					"	

Additional Comments: start at 12:55 ; 8 Liters

Sampled at 1:18 p.m.



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RCRA Closures*Environmental Consulting & Contracting*Monitoring Well Sampling FormClient: IEPA/Jennison Wright NPL BES Job #: 119386-11Facility Location: Galesburg, IllinoisWell ID#: MW-55 Sampling Date: 10/12/2010 Time: 149 hrWeather Conditions: F. Sunny Air Temp: 76°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

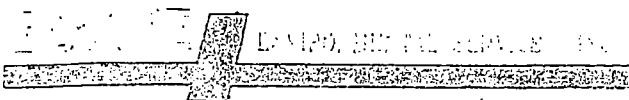
Purge Method: Pestallic Pump Purge Date: 10/12/10A. Well Diameter: 2"=0.167 feet Purge Start: 1:31 P.M.B. Well Depth: 27.00 feet (from TOC) Purge Stop: 1:49 P.M.C. Water Level: 16.46 feet (measured) Purge Rate: .5 GPMD. Height of Water: feet (B-C) Volume Purged:E. Casing Volume: gallons (D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well) Purged by: B. BakerF. Number of Gallons to Purge: Witness: R. EnvySampling Date: Pestallic Pump Sampling Time: 1:49 P.M.Sampling Method:  Depth of Sample: 22.0' bgspH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: Brett Baker Witness: R. Envy



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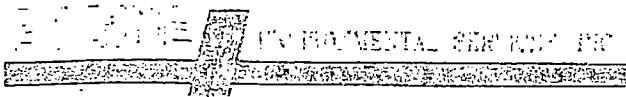
*Environmental Consulting & Contracting*

WATER QUALITY/STABILIZATION READINGS  
WELL ID# MW-55

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
135	1 liter	90.5	0.942	0.35	6.67	16.75
137	2 liters	91.34	0.841	0.21	6.67	
139	3 liters	92.42	0.942	0.23	6.68	
141	4 liters	93.38	0.940	0.16	6.65	..
143	5 liters	94.03	0.934	0.12	6.63	
145	6 liters	94.69	0.929	0.11	6.64	
147	7 liters	95.29	0.921	0.14	6.62	
149	8 liters	95.55	0.918	0.14	6.61	
				"	"	
				"	"	

Additional Comments: start at 10:31 AM; sample after 8. liters

sampled at 1:19 PM.



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### *Environmental Consulting & Contracting*

#### Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-5D Sampling Date: 10/12/2010 Time: 2:24 hr

Weather Conditions: P.Sunny Air Temp: 78

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

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Purge Method: PESTALTIC PUMP Purge Date: 10/12/10

A. Well Diameter: 2" = 0.167 feet Purge Start: 2:04 PM

B. Well Depth: 110.5 feet (from TOC) Purge Stop: 2:24 PM

C. Water Level: 105.46 feet (measured) Purge Rate: 0.5 gpm

D. Height of Water: 15.46 feet (B-C) Volume Purged:

E. Casing Volume: 105.5' BGS gallons (D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well) Purged by: B-fisher

F. Number of Gallons to Purge: 105.5' BGS Witness: R-Grey

Sampling Date: 10/12/10 Sampling Time: 2:24 PM

Sampling Method: PESTALTIC PUMP Depth of Sample: 105.5' BGS

pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

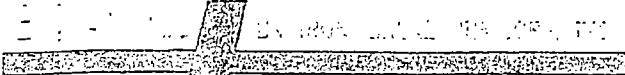
Sample Appearance: \_\_\_\_\_

Other notes: GUY'S WERE MEAN TO ME.

Sampler: BRETT SAUER Witness: RICK EVERETT

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## WATER QUALITY/STABILIZATION READINGS

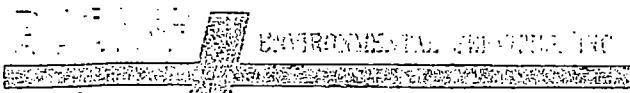
WELL ID# MW-5D

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
209	1 liter	64.17	0.950	0.93	6.95	15.47
212	2 liters	64.30	0.728	0.52	7.08	
214	3 liters	64.14	0.905	0.43	7.09	
216	4 liters	64.01	0.892	0.38	7.11	..
218	5 liters	63.61	0.856	0.35	7.14	
221	6 liters	63.48	0.852	0.35	7.20	
224	7 liters	63.36	0.651	0.33	7.19	

Additional Comments: STARTED sampling @ 204 after 7 liters

Started sampling @ 224

NICE FRESH suspended solids visible



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RCRA Closures*Environmental Consulting & Contracting*Monitoring Well Sampling FormClient: IEPA/Jennison Wright NPL BES Job #: 119386-11Facility Location: Galesburg, IllinoisWell ID#: MU-20 Sampling Date: 10/13/2010 Time: 1121 hrWeather Conditions: P-Sunny Air Temp: 60°Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)  

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Purge Method: Pestalic Pump Purge Date: 10/13/10A. Well Diameter: 2" = 0.167 feet Purge Start: 1059 AMB. Well Depth: 119.5 feet Purge Stop: 1120 AM  
(from TOC)C. Water Level: 17.39 feet Purge Rate: .5 l/min  
(measured)D. Height of Water:                  feet Volume Purged:                   
(B-C)E. Casing Volume:                  gallons Purged by: B. Goker  
(D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)F. Number of Gallons to Purge:                  Witness: L. EveySampling Date: 10/13/10 Sampling Time: 1059 AM 1121Sampling Method: Pestalic Pump Depth of Sample: 35'pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: Brian Walker Witness: L. Evey

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**WATER QUALITY/STABILIZATION READINGS**

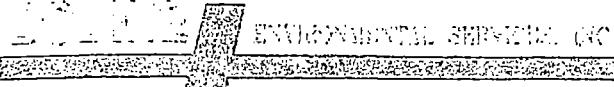
WELL ID# MW-20

*Fixed  
Flow  
Cell  
(leaking)*

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1103	1 liter	77.73	0.963	0.90	6.46	17.48
1103	2 liters	76.79	0.932	0.39	6.45	
1104	3 liters	79.26	0.919	0.32	6.50	
1112	4 liters	79.34	0.905	0.28	6.53	"
1114	5 liters	79.38	0.904	0.27	6.53	
1116	6 liters	79.48	0.892	0.26	6.55	
1118	7 liters	79.51	0.885	0.23	6.55	
1120	8 liters	79.92	0.89	0.21	6.56	

Additional Comments: Sampled @ 10:59 AM; Sampled after 8 liters

Sampled @ 1121 A.M.



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### *Environmental Consulting & Contracting*

#### Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-22 Sampling Date: 10/13/2010 Time: 1155 hr

Weather Conditions: Partly sunny Air Temp: 65°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

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Purge Method: Pneumatic Pump Purge Date: 10/13/10

A. Well Diameter: 2"=0.167 feet Purge Start: 1135

B. Well Depth: 119.5 feet (from TOC) Purge Stop: 1154

C. Water Level: 16.93 feet (measured) Purge Rate: -5 l/min

D. Height of Water:  feet (B-C) Volume Purged:

E. Casing Volume:  gallons (D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well) Purged by: R. E. Engle

F. Number of Gallons to Purge:  Witness: R. E. Engle

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Sampling Date: 10/13/10 Sampling Time: 1155

Sampling Method: Pneumatic Pump Depth of Sample: 35'

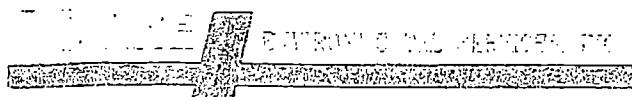
pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

Temperature: \_\_\_\_\_ °F Metals Filtered Yes No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: R. E. Engle Witness: R. E. Engle



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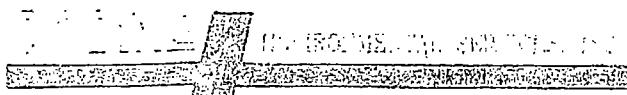
*Environmental Consulting & Contracting*

WATER QUALITY/STABILIZATION READINGS  
WELL ID# MW-22

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1139	1 liter	103.62	1.025	0.20	6.45	17.02
1141	2 liters	105.00	1.027	0.12	6.48	
1143	3 liters	105.34	1.028	0.09	6.49	
1145	4 liters	105.18	1.028	0.12	6.48	"
1147	5 liters	105.17	1.027	0.08	6.46	
1149	6 liters	105.02	1.022	0.07	6.44	
1151	7 liters	105.00	1.069	0.07	6.43	
1157	8 liters	105.00	1.065	0.07	6.42	
1						

Additional Comments: Start: 1135 AM, Sampled after 8 liters.

Start Sampling: 1155 AM



Waste Management      Tank Removal  
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Site Remediation      Spill Response  
Environmental Audits      RCRA Closures

### *Environmental Consulting & Contracting*

#### Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL      BES Job #: 119386-11

Facility Location: Galesburg, Illinois

Well ID#: MW-23      Sampling Date: 10/13/2010      Time: 1225 hr

Weather Conditions: P. Sunny      Air Temp: 70°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

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Purge Method: Pneumatic Pump      Purge Date: 10/13/10

A. Well Diameter: 2" = 0.167 feet      Purge Start: 1209 pm

B. Well Depth: 119.5 feet      (from TOC)      Purge Stop: 1224 pm

C. Water Level: 16.88 feet      (measured)      Purge Rate: .5 gpm

D. Height of Water:                  feet      (B-C)      Volume Purged:                 

E. Casing Volume:                  gallons      (D \* 0.17 gal/ft for 2" well, D \* 0.66 gal/ft for 4" well)      Purged by: B-Ever

F. Number of Gallons to Purge:                       Witness: R. Evey

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Sampling Date: 10/13/10      Sampling Time: 1225 pm

Sampling Method: Pneumatic Pump      Depth of Sample: 35'

pH: \_\_\_\_\_ Dissolved O<sub>2</sub>: \_\_\_\_\_ (mg/l) Spec. Conductivity: \_\_\_\_\_ (umhos)

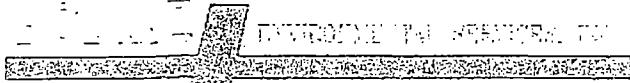
Temperature: \_\_\_\_\_ °F      Metals Filtered \_\_\_\_\_ Yes \_\_\_\_\_ No: Filter size: \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Other notes: \_\_\_\_\_

Sampler: Brett Iska      Witness: Rick Evey

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Waste Management

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## WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-23

TIME	PURGE VOLUME	TEMP. °F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1213	1 liter	106.72	0.890	0.35	6.27	16.98
1212	2 liters	107.19	0.889	0.21	6.34	
1214	3 liters	106.11	0.838	0.18	6.39	
1216	4 liters	105.33	0.890	0.16	6.36	"
1218	5 liters	104.54	0.894	0.15	6.39	
1220	6 liters	103.43	0.901	0.14	6.39	
1222	7 liters	103.12	0.906	0.14	6.40	
1224	8 liters	102.88	0.911	0.13	6.41	
	0					
					"	
					"	

Additional Comments: Start at 1209pm; Sampling after 8 liters

Sampled at 1225 p.m.

**APPENDIX F**

**Photograph Log**

Photo #1	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
October 12, 2010	
Bodine Project No. 119386	<p>Facility: Jennison Wright NPL Site – LPC No. 1190400008</p> <p>Location: 900 W. 22<sup>nd</sup> Street, Granite City, Illinois</p> <p>Description: Bodine field supervisor collecting groundwater sample from monitoring well utilizing low flow sampling.</p>

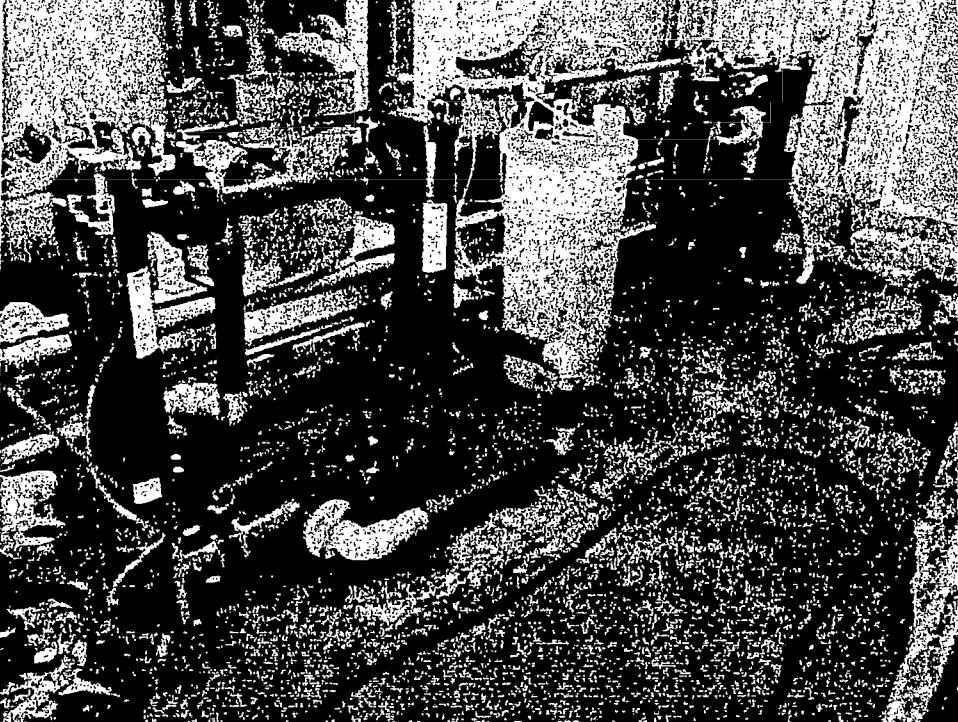
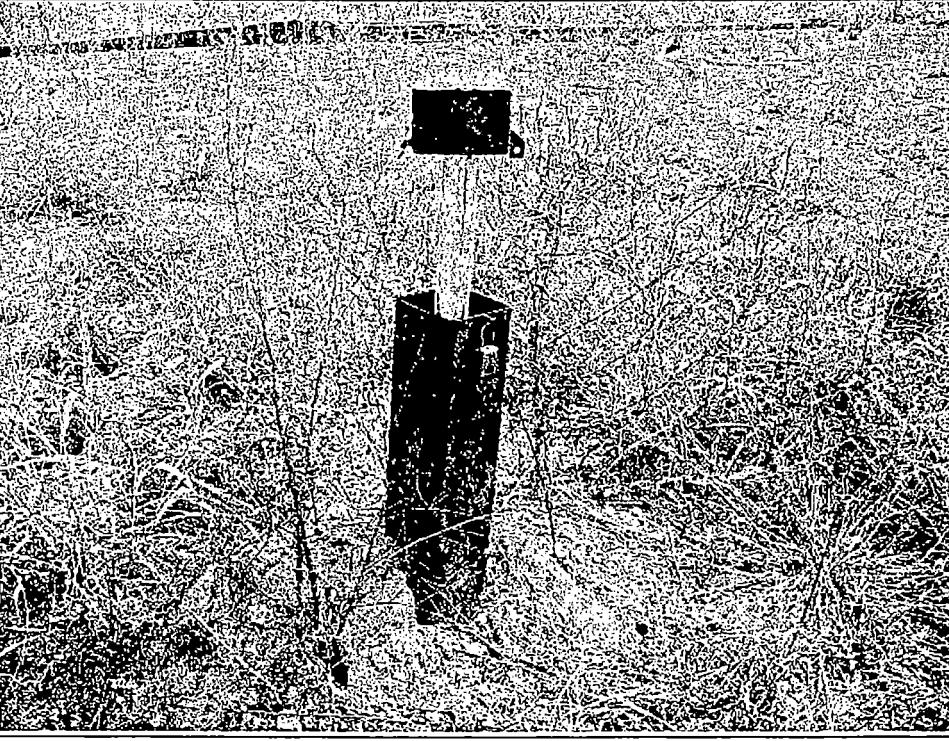
Photo #2	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
November 10, 2010	
Bodine Project No. 119386	<p>Facility: Jennison Wright NPL Site – LPC No. 1190400008</p> <p>Location: 900 W. 22<sup>nd</sup> Street, Granite City, Illinois</p> <p>Description: A photo of the new bag filter units.</p>

Photo #3	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
December 8, 2010	
Bodine Project No. 119386	<p>Facility: Jennison Wright NPL Site – LPC No. 1190400008</p> <p>Location: 900 W. 22<sup>nd</sup> Street, Granite City, Illinois</p> <p>Description: A view of Bodine project technician pumping DNAPL from the bottom of MW-21D.</p>

Photo #4	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
December 8, 2010	
Bodine Project No. 119386	<p>Facility: Jennison Wright NPL Site – LPC No. 1190400008</p> <p>Location: 900 W. 22<sup>nd</sup> Street, Granite City, Illinois</p> <p>Description: View of heaved well MW-9S, prior to abandonment.</p>